

Missouri Department of Natural Resources Air Pollution Control Program 2013 Monitoring Network Plan

May 23, 2013

TABLE OF CONTENTS

SUMMARY OF PROPOSED CHANGES	3
INTRODUCTION	4
CURRENT AMBIENT AIR MONITORING NETWORK	6
PROPOSED CHANGES TO NETWORK	8
1. Lead Monitoring Network	8
2. Sulfur Dioxide (SO ₂) Monitoring Network	
3. NATTS and Other Special Purpose Monitoring	
4. PM _{2.5} Monitoring Network	
5. Ozone Monitoring Network	
6. PM ₁₀ Monitoring Network	
7. Nitrogen Dioxide (NO ₂) Monitoring Network	
8. Carbon Monoxide (CO) Monitoring Network	
9. Rural National Core	
NETWORK DESCRIPTION/COMPONENTS	
APPENDIX 1. MISSOURI MONITORING NETWORK DESCRIPTION	í 5 /

SUMMARY OF PROPOSED CHANGES

Missouri's 2013 Monitoring Network Plan proposes to address:

	One new near-roadway nitrogen dioxide (NO ₂) monitoring site in St. Louis,
	One new near-roadway nitrogen dioxide (NO2) monitoring site in Kansas City,
\Box \mathbf{F}	Planning for the second near-roadway NO ₂ site in St. Louis,
\Box I	Discontinuation request for the Wildwood Lane industrial SO ₂ monitor.

As part of the condition of receiving one-time section 103 Grant funds to implement some of the NO₂ near-roadway monitoring network the department will conduct special purpose PM_{2.5}, PM_{10LC}, PM_{10-2.5}, PM_{2.5} black carbon, meteorological, and carbon monoxide (CO) monitoring at the Forest Park and Blue Ridge I-70 near-roadway NO₂ sites.

How to Make Public Comments Concerning this Plan

Comments concerning this Monitoring Network Plan may be sent electronically to: cleanair@dnr.mo.gov or in writing to the following address and must be received by close of business June 25, 2013:

Missouri Department of Natural Resources Air Pollution Control Program Air Quality Analysis Section/Air Monitoring Unit P.O. Box 176 Jefferson City, MO 65102

INTRODUCTION

The Missouri Department of Natural Resources operates an extensive network of ambient air monitors to comply with the Clean Air Act and its amendments. The Ambient Air Quality Monitoring Network for the State of Missouri consists of State and Local Air Monitoring Stations (SLAMS), Special Purpose Monitoring Stations (SPMS), and National Core (NCore) monitoring consistent with requirements in federal regulation 40 CFR 58.10.

40 CFR 58.10 requires states submit to EPA an annual monitoring network plan including any proposed network changes. With regard to state and local air monitoring station changes, approval by the Environmental Protection Agency Regional Administrator is required.

The plan must contain the following information for each monitoring station in the network:

- 1. The Air Quality System site identification number for existing stations.
- 2. The location, including the street address and geographical coordinates, for each monitoring station.
- 3. The sampling and analysis method used for each measured parameter.
- 4. The operating schedule for each monitor.
- 5. Any proposal to remove or move a monitoring station within a period of eighteen months following the plan submittal.
- 6. The monitoring objective and spatial scale of representativeness for each monitor.
- 7. The identification of any sites that are or are not suitable for comparison against the annual PM_{2.5} National Ambient Air Quality Standard (NAAQS).
- 8. The metropolitan statistical area, core-based statistical area, combined statistical area or other area represented by the monitor.

Network Design

Federal regulation (40 CFR Part 58) establishes the design criteria for the ambient air monitoring network. The network is designed to meet three general objectives:

Provide air pollution data to the public in a timely manner.
Support compliance with ambient air quality standards and emissions strategy
development.
Support air pollution research studies.

Specific objectives for the monitoring sites are to determine the highest pollution concentrations in an area, to measure typical concentrations in areas of high population density, to determine the impact of significant sources or source categories, to determine general background levels and to determine the extent of regional pollutant transport among populated areas. Minimum site requirements are provided for ozone and particulate matter based on Core Based Statistical Area (CBSA) population.

Appendix E to Part 58 establishes the specific requirements for monitor/probe siting to ensure the ambient data represents the stated objectives and spatial scale. The requirements are

pollutant/scale specific and involve horizontal/vertical placement. Additional details concerning the sites may be found in Appendix 1.

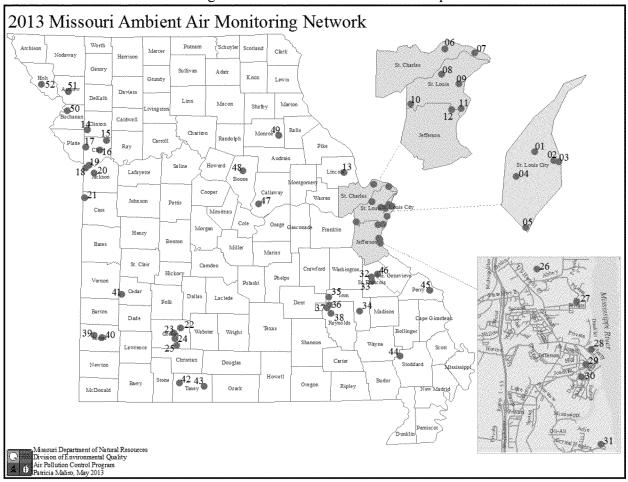
There is only one PM_{2.5} monitor in Missouri that is not applicable for comparison to the annual NAAQS. The Branch Street site is a middle-scale site focused on a group of sources in the industrial riverfront area and is not representative of neighborhood or larger spatial scale for PM_{2.5} monitoring. The PM_{2.5} monitors being deployed collocated with the near-roadway NO₂ monitors will be micro-scale monitors, but EPA has indicated in 40 CFR 58 Appendix D, 4.7.1(c)(2) that "...In many situations, monitoring sites that are representative of microscale or middle-scale impacts are not unique and are representative of many similar situations. This can occur along traffic corridors or other locations in a residential district. In this case, one location is representative of a number of small scale sites and is appropriate for evaluation of long-term or chronic effects." these monitors may be considered by EPA to be representative of larger areas near roadways and comparable to the annual PM_{2.5} NAAQS consistent with 40 CFR 58.30.

Unanticipated Network Modifications

Changes to the monitoring network may occur outside the annual monitoring network planning process due to unforeseen circumstances resulting from severe weather, natural events, changes in property ownership, or other situations that occur after the monitoring plan has been posted for public inspection and approved by the EPA Regional Administrator. Any changes to the network that result due to conditions outside the state's logistical control and not included in the current monitoring network plan will be communicated in writing to EPA Region VII staff and identified in the subsequent annual monitoring network plan.

CURRENT AMBIENT AIR MONITORING NETWORK

The statewide current monitoring network is shown below in the map and table.



Legend					
St. Louis Area		Springfield Are		OutState	Area Cont'
Site# Site Name	Parameter Monitored		O ₃ , WS, WD, IT.	49. MTSP	PM ₁₀ , SO ₂ , O ₃ ,WS, WD, IT
01. Margaretta	PM ₁₀ , SO ₂ , NO ₂ , NO ₃ , IT	23. Hillorest H.S	. O ₃ , IT.	50. St Jos	
02. Blair St.	PM ₁₀ , PM ₁₀₄₀ , PM ₂₅ , PM ₂₅ (Spec)	24. MSU	PM ₁₀ , PM _{104C} , PM _{2.5} , PMCoarse,		Station PMCoarse, OT, IT, BP, RH.
	PMCoarse, O ₃ , SO ₂ , Pb, NO ₂ ,		OT, IT.	51. Savan	
	NOy, NOx, CO, BC, Carbonyls,	25. South	SO ₂ , IT.	52. Forest	
	Hexa Chromium, PAHs, VOCs, WS, WD, OT, IT, SR, BP,	Charleston			Levee
	RH.	Herculaneum A		Acronym:	
03. Branch St.	PM ₁₀ , PM _{10LC} , PM _{2.5} , PMCoarse,	26. Pevely N.	Pb.	PM ₁₀	Particulate Matter (Diameter size
	WS, WD, OT, IT, BP, RH.	27. Pevely	Pb.		≤10 micrometer).
04. Forest Park		28. Sheman	Pb.	PM _{10-LC}	PM ₁₀ Local Condition.
	NO, NOx, CO, BC, WS, WD, OT, IT, SR, BP, RH, Prec.	29. Dunklin H. School	Pb.	PM _{2.5}	Particulate Matter (Diameter size \$2.5 micrometer).
05. S. Broadway	PM _{routh} , PM _{2.5} , PMCoarse, OT, IT	30. Mott St.	SO ₂ , Pb, WS, WD, IT.	PMCoarse	Particulate Matter (Diameter size
out at a country	BP. RH.	31. Ursuline N.	•	* *************************************	between 2.5 and 10 micrometer).
06. Orchard Farm	O ₂ , iT.			Spec	Speciation.
07. West Alton	O ₂ , WS, WD, OT, IT, SR.	Old Lead Belt A	irea	SO ₂	Sulfur Dioxide
08. Maryland	O3, WS, WD, OT, IT.	32. Park Hills	Pb.	NO ₂	Nitrogen Dioxide.
Heights		33. St. Joe	Pb.	NO	Nitric Oxide.
09. Ladue	PM _{10-LC} , PM ₂₋₅ , PMCoarse,	State Park		NOy	Reactive Oxides of Nitrogen.
	WS, WD, OT, IT, BP, RH			NOx	Oxides of Nitrogen.
10. Pacific	O ₃ , WS, WD, OT, IT.	New Lead Belt	A STATE OF THE STA	CO	Carbon Monoxide.
11. Oakville	PM ₁₀ , WS, WD, IT.	34. Glover	Pb.	Pb	Lead.
12. Amold	PM _{104C} , PM _{2.5} , PM _{2.5} (Spec)	35. Buick NE	Pb.	₿C	Black Carbon.
West	PMCoarse, O ₃ , WS, WD, OT, IT,	36. Oates	Pb.	Prec	Precipitation.
AM Palace	BP, RH.	37. Bill's Creek		WS	Wind Speed.
13. Foley	O ₃ , WS, WD, IT.	38. Fletcher	Pb.	WD OT	Wind Direction. Outside Temperature.
Kansas City Are	···	OutState Area		IT	Indoor Temperature.
14. Trimble	≝ O₅. WS. WD. IT.	39. Alba	O _{z.} IT.	SR	Solar Radiation
15. Watkins Mill		40. Carthage	PM _{so.} WS. WD. IT.	BP	Barometer Pressure
16. Liberty	PM _{104.0} , PM ₂₅ , PM ₂₅ (Spec)	41. El Dorado	PM _{104.0} , PM _{2.5} , PMCoarse, O ₃ ,	RH	Relative Humidity.
	PMCoarse, O ₃ , WS, WD, OT, IT,	Springs	WS, WD, OT, IT, BP, RH		Interagency Monitoring of.
	SR. BP. RH.		IMPROVE (Protocol).		PROtected Visual Environments
17. Rock Creek	Oz. WS, WD, IT.	42. Branson	O3, WS, WD, IT.	H.S.	High School.
18. Front St.	PM ₁₀ .	43. Hercules	PM _{2.5} (Spec) - IMPROVE.	MSU	Missouri State University.
19. Troost	PM ₁₀ , PM _{2.5} , SO ₂ , NO ₂ , NO, NO _X	Glades		MTSP	Mark Twain State Park.
	OT, IT.	44. Mingo	PM _{2.5} (Spec) – IMPROVE.	S.	South.
20. Blue Ridge,		45. Farrar	O ₃ , WS, WD, IT.	N.	North.
1-70	NO, NOx, CO, BC, WS, WD, OT,		PM _{2.5} (Spec) O ₃ , WS, WD, IT.		
	IT, SR, BP, RH, Prec.		O ₃ , WS, WD, IT.		
21. Richards	PM ₁₀₁₀ , PM ₂₅ , PMCoarse, O ₃ ,	Field	and, comm		
Gebaur-S.	WS, WD, OT, IT, BP, RH.	48. Finger Lakes	5 U ₃ , 11.		

Notes:

- a. The acronym PM_{10-LC} is also commonly referred to as PM_{10c} when collected with a low volume sampler consistent with appendix O to Part 50. PM_{10-LC} means particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers where the concentration is reported at local conditions of ambient temperature and barometric pressure. PM_{10-LC} is used in this document to describe any continuous or filter based PM₁₀ low volume measurement concentration that is reported at local conditions of ambient temperature and barometric pressure.
- b. PM₁₀ means particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers where the concentration is adjusted to EPA reference conditions of ambient temperature and barometric pressure (25 °C and 760 millimeters of mercury or STP).
- c. PMcoarse is also frequently referred to as PM_{10-2.5}.

PROPOSED CHANGES TO THE NETWORK

1. Lead Monitoring Network

Changes to airborne lead monitoring requirements were published in the Federal Register: December 27, 2010 (Volume 75, Number 247). These new rules require a plan for monitoring lead sources emitting 0.50 tons per year or more, revised from the previous requirement for monitoring sources emitting one ton per year or more. Airports are specifically exempted from these requirements except for a special study being conducted at specific airports, none of which are in Missouri.

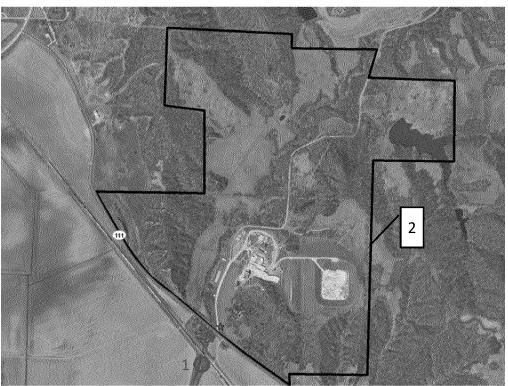
Department staff reviewed the 2011 National Emissions Inventory and did not identify any additional lead sources emitting greater than 0.50 tons of lead per year for which ambient air monitoring is not currently being conducted or where EPA has not already granted a modeling waiver consistent with 40 CFR 58 Appendix D, 4.5 (a) (ii).

1.1 Forest City, Exide monitoring site

The 2013 Monitoring Network Plan identifies the resumption of lead TSP monitoring at a location near the Exide Secondary Lead Smelter in Forest City MO. The monitoring method initially deployed, as described in the 2012 Monitoring network Plan, utilized the low volume PM_{10c} sampler and Pb-PM₁₀ analysis performed by X-ray Fluorescence (XRF) following specifications and procedures in 40 CFR part 50 Appendix Q. Since the deployment of the Pb-PM₁₀ FRM monitor in March of 2012, three month rolling averages of airborne lead were monitored at concentrations greater than 0.15 μ g/m³. Therefore, the department has deployed a Pb-TSP sampler for a subsequent attainment determination.

Department and EPA Region VII monitoring unit staff visited the site on December 14, 2011 and confirmed that the site meets the applicable middle scale lead monitoring criteria and the monitoring probe and monitoring path siting criteria of Appendix D and E to Part 58 respectively. Figure 1.1.1 identifies the monitoring site location and aerial view of the facility and surrounding area.

Figure 1.1.1 Forest City Lead Monitoring Site



- Forest City- Levee AQS# 29-087-0008 (formerly known as Schuylkill Metals-West)
- 2. Property boundary (source MDNR HWP/RCRA/Operating Facilities Unit)
- ★ Facility main entrance

2. Sulfur Dioxide Monitoring Network

On June 2, 2010, the US EPA revised the primary sulfur dioxide standard by establishing a 1-hour standard at the level of 75 parts per billion, or ppb. The EPA revoked the two previous primary standards of 140 ppb evaluated over 24-hrs and 30 ppb evaluated over an entire year. The 2011 Monitoring Network Plan¹ identifies the minimum network monitoring required by the Population Weighted Emissions Index (PWEI).

NAAQS compliance SO₂ monitoring has been conducted by the City Utilities of Springfield at the Wildwood and James River-South SO₂ monitoring Sites in Greene County (sites number 7 and 8 in the SO₂ monitoring network map). Given recent changes by EPA with respect to the way in which the SO₂ NAAQS will be implemented, the state intends to propose using a modeling/monitoring approach to implementing the SO₂ NAAQS. With this approach the Wildwood monitoring location AQS# 29-77-0040 is redundant, and NAAQS compliance monitoring can be satisfied with the James River and South Charleston monitoring sites.

50 CFR Part 58.14 identifies conditions under which SLAMS or NAAQS compliance monitors may be approved by the EPA Regional Administrator to be discontinued. The SO₂ NAAQS is based on a three year average the 99th percentile form consistent with Appendix T to Part 50.

Considerations for Site Removal:

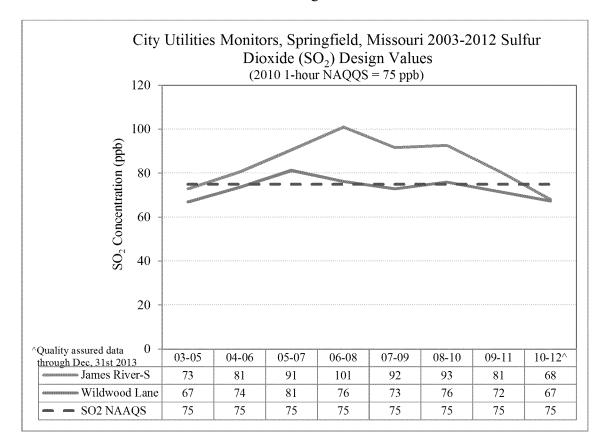
- The site is not currently in violation of the SO₂ NAAQS.
- The site has not monitored a violation of the SO₂ NAAQS since 2008-2010.
- The site is not required in any SO₂ Attainment or Maintenance Plan.
- Another SO₂ site, James River AQS# 29-77-0037, is monitoring a higher SO₂ design value and is located in the same county approximately 289 meters from the Wildwood site. (Figures 2.1a, 2.1b, and 2.1c)
- The minimum monitoring requirements cited in 40 CFR Part 58 Appendix D for SO₂ monitoring in the Springfield CBSA is zero (0) monitors consistent with the PWEI calculation. Therefore, the remaining two SO₂ monitors exceed the minimum monitoring requirements in this CBSA after the Wildwood site is discontinued.

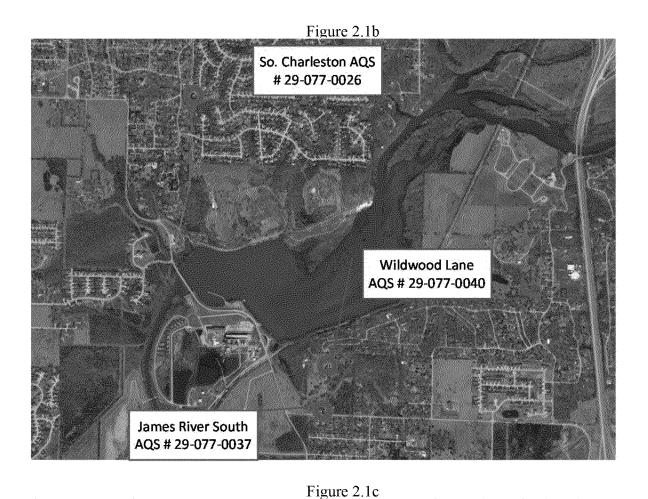
Therefore, the department requests that EPA Region VII approve discontinuing the SO₂ monitoring at Wildwood monitoring location AQS# 29-77-0040.

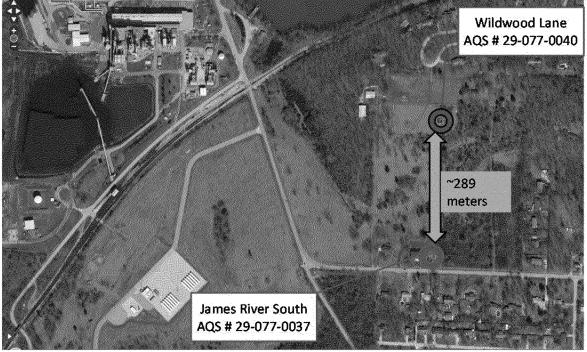
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¹ http://dnr.mo.gov/env/apcp/docs/2011monitoringnetwork.pdf

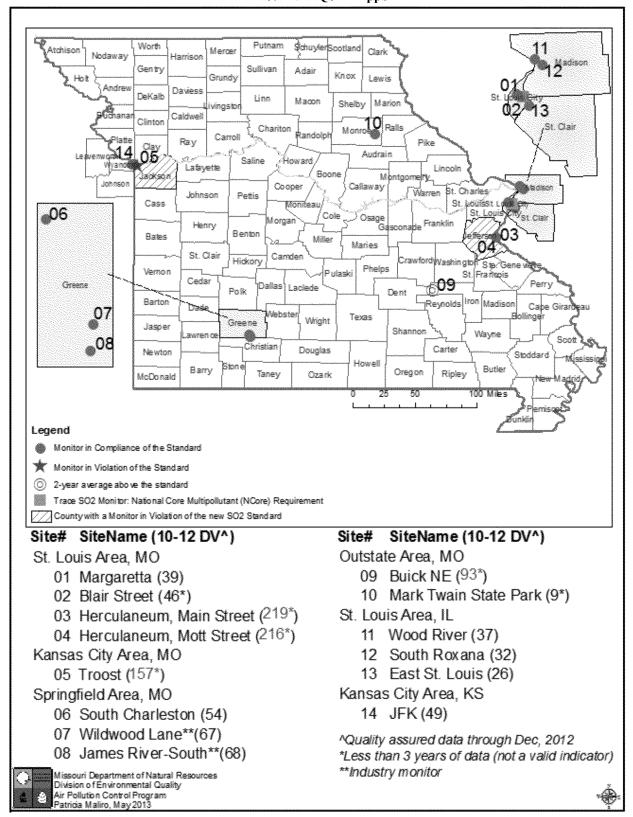
Figure 2.1a







Missouri Statewide and the Surrounding SO₂ Monitoring Network, 2013 1-hour NAAQS = 75 ppb



3. National Air Toxics Trends Stations (NATTS), and Other Non-Criteria Pollutant Special Purpose Monitoring

3.1 National Air Toxics Trends Stations Monitoring

In addition the regular NATTS monitoring at Blair St., additional NATTS grant funds are being utilized to support collocating a near real time PM₁₀ Metals Monitor (XactTM 620) at the NATTS site to increase understanding of the temporal variation of metals in the ambient air (particularly arsenic and lead) routinely measured by the time integrated 24-hr filter based PM₁₀ sampling at this site. This project is useful in supplementing ambient air monitoring data objectives addressed in EPA's multi pollutant strategy. Continued availability of funding will allow the PM₁₀ Metals Monitor (XactTM 620) to continue for 2014.

3.2 Organic and Elemental Carbon Monitor Evaluation Project

The EPA Office of Air Quality Planning and Standards contacted the EPA Regional Office and the state of Missouri about participating in a three year monitor evaluation study scheduled to begin in the summer/fall of 2011. EPA would provides the monitor and certain related components in exchange for the state providing in-kind staff time to operate and report data to the EPA Air Quality System (AQS) from the instrument. The location for the study is the Blair St. Site, since the site is currently part of the NCore, NATTS and Chemical Speciation monitoring programs. The data from the Blair St. site is used extensively in various health and air pollution studies. Since elemental and organic carbon account for a significant amount of the particulate matter mass measured at this site at various times, understanding the temporal variation in carbon species relative to the 24-hr integrated filter based carbon data will be useful in understanding the local source contributions and diurnal variation in the carbon concentrations. This project will be useful in supplementing ambient air monitoring data objectives addressed in EPA's multi pollutant strategy.

Currently, the preliminary near real-time monitoring data for this monitor is being reported each hour to the State of Missouri web page. EPA OAQPS and MDNR staff are working on the data format coding necessary to facilitate AQS and AirNow data reporting.

3.3 Black Carbon

As part of the condition of receiving one time section 103 Grant funds to implement certain sites for the near-roadway monitoring network, the department will conduct special purpose PM_{2.5} Black Carbon monitoring at the Forest Park near roadway NO₂ site using an Aethalometer. Black Carbon monitoring at the near roadway sites will continue for 2014 pending available funding.

4. PM_{2.5} Monitoring Network

The current PM_{2.5} 103 Grant Work plan (April 2013 – March 2014) includes purchasing new TEOM 1405-DF continuous PM_{2.5} monitors. One new monitor will be used to satisfy the PM_{2.5} monitoring requirements at the Kansas City near-roadway monitoring site. The other monitors will be used as network spares to avoid equipment down time during routine servicing or unexpected malfunctions.

The PM_{10c} (local conditions of ambient temperature and barometric pressure) channel and PMcoarse (PM_{10-2.5}) channel from the TEOM-1405-DF will be reported for each site as a special purpose monitor since they are available simultaneously with the PM_{2.5} FEM channel. The TEOM-1405-DF is not currently designated as a Federal Equivalent Method (FEM) for these parameters. This will provide more temporal and special coverage for the various fractions of particulate matter at the PM_{2.5} monitoring sites in the network. The manufacturer of the TEOM-1405-DF is in the process of obtaining a Federal Equivalent Method designation for both the PM₁₀ and PMcoarse channels on the TEOM-1405-DF monitor.

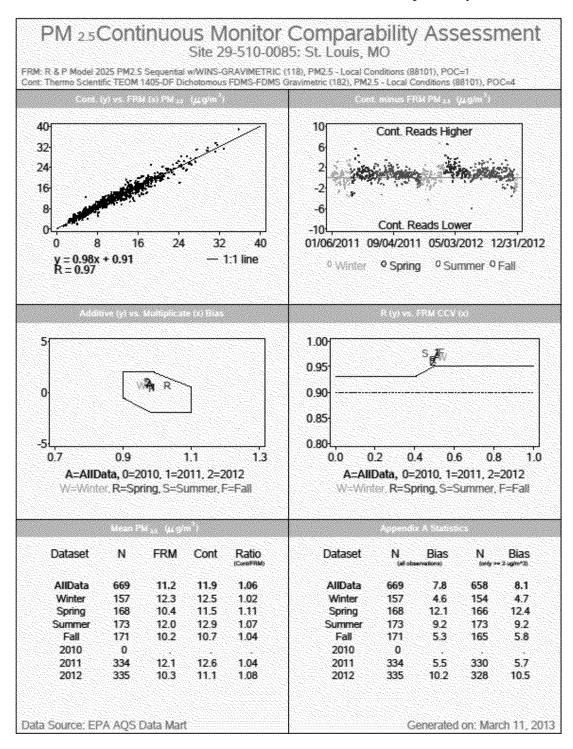
Network PM_{2.5} collocated FRM requirements are satisfied at Blair St. NCore site in St. Louis and the Troost site in Kansas City. The following page reports the FRM/FEM Comparability statistics (Class III performance criteria of 40 CFR Part 53) for two years of the TEOM-1405-DF (EQPM-0609-182) operating at the Blair St. St. Louis NCore site. The additive and multiplicative bias meets the Class III performance criteria of 40 CFR Part 53.

Although the FEM monitor at Blair St. is biased higher than the FRM, the FRM is designated as the primary reporting monitor for the site to meet $PM_{10-2.5}$ NCore monitoring requirements. The Blair St. site is the $PM_{2.5}$ design value site for the Missouri side of the St. Louis CBSA area and the positive FEM bias at the Blair St. site is unlikely to affect the design value.

Beginning in 2013 the FRM PM_{2.5} samplers use the Very Sharp Cut Cyclone VSCCTM particle size separator. This FRM configuration will match the VSCCTM configuration of the Performance Evaluation Program (PEP) samplers used to independently audit the State's FRM PM_{2.5} sampling network. The VSCCTM separators are less costly to maintain and this change may help improve PEP audit bias trends.

Class III Performance Criteria of 40 CFR Part 53 Blair St. St. Louis Air Quality System # 29-510-0085 TEOM-1405-DF, EQPM-0609-182 (PM_{2.5}) January 6, 2011 through December 31, 2012

Source: EPA AirData PM_{2.5} Continuous Monitor Comparability Assessments



REVISED PM_{2.5} MONITORING NETWORK

Site	Schedule*	Type	Agency	NAAQS
St. Louis	mrc Shahinization of management of the Control of t			
1. BlairSt.	1	FRM	ESP	24 hr & Annual, NCore PM coarse
	6	Collocated	ESP	Doubles as PMcoarse collocated sampler
	3	Speciation	ESP	
	Н	TEOM-1405-DF FEM	ESP	AQI, NCore PM10-2.5 continuous
2. Branch St.	H	TEOM-1405-DF FEM	ESP	24 hr & AQI (Unique Middle Scale Monitor)+
3. South Broadway	H	TEOM-1405-DF FEM	ESP	24 hr & Annual/AQI
4. Ladue	H	TEOM-1405-DF FEM		24 hr & Annual/AQI
5. Arnold West	3	Speciation	ESP	${\it 2000} \\$
	H	TEOM-1405-DFFEM	ESP	24 hr& Annual/AQI
6. Forest Park (near-roadway)	H	TEOM-1405-DF FEM		24 hr & Annual/AQI(Micro Scale Monitor)
Kansas City				
7. Liberty	3	Speciation	ESP	
	Н	TEOM-1405-DFFEM	ESP	24 hr & Annual/AQI
8. Troost	3	Collocated FRM	ESP	24 hr & Annual (QualityAssurance)
	H	TEOM-1405-DFFEM	ESP	24 hr & Annual/AQI
9. Blue Ridge I-70 (near-roadway	/ H	TEOM-1405-DF FEM	ESP state of the state of the	24 hr & Annual/AQI(Micro Scale Monitor)
10. Richards-Gebaur South	H	TEOM-1405-DF FEM	ESP	24 hr& Annual/AQI
Springfield			ten ke jiili ja lalahan ristiilaan een annastis tiististatiin ji jojajalaheen annastii, valakajaleeen nannastest	and a supplied to the supplied of the supplied
11. MSU	H	TEOM-1405-DF FEM	ESP	AQI, PM10-2.5 continuous
St. Joseph				
12. Pump Station	Н	TEOM-1405-DF FEM	ESP	24 hr & Annual/AQI,PM10-2.5 continuous
	Н	TEOM-1405-DF FEM	ESP	Collocated FEM-PM2.5
Outstate				
13. El Dorado Springs	Н	TEOM-1405-DF FEM	ESP	24 hr & Annual/AQI
	3	IMPROVE	ESP	
14. Bonne Terre	3	Speciation	ESP	
15. Mingo	3	IMPROVE	Fish & WildlifeService	
16. Hercules Glades	3	IMPROVE	Forest Service	

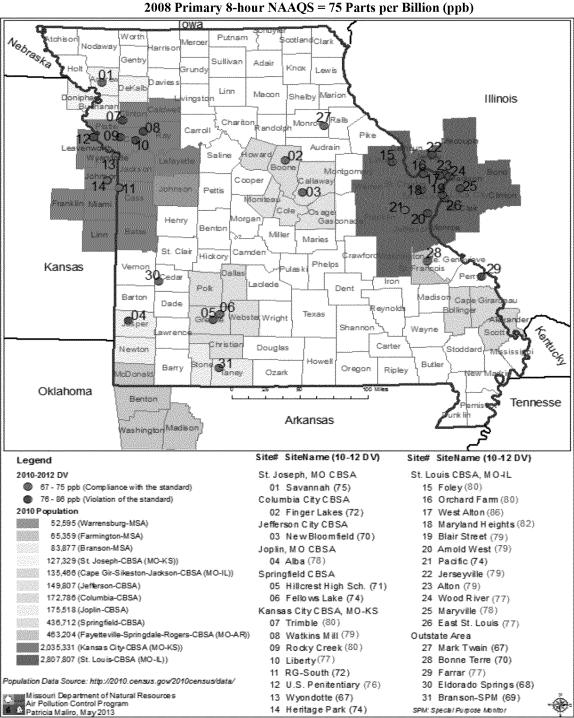
^{* 1 =} Everday sampling; 3 = Every third day; 6 = Every sixthday; H = Continuous monitoring, hourly data reported.

Near-Roadway PM $_{2.5}$ monitors-40 CFR 58, Appendix D, 4.7.1 (c) (2) "... In many situations, monitoring sites that are representative of microscale or middle-scale impacts are not unique and are representative of many similar situations. This can occur along traffic corridors or other locations in a residential district. In this case, one location is representative of a number of small scale sites and is appropriate for evaluation of long-term or chronic effects."

[†] The Branch St. Monitor is a unique middle scale impact site and not eligible for comparison to the Annual PM_{2.5} NAAQS consistent with 40 CFR 58.30.

5. Ozone Monitoring Network

There are no planned changes to the ozone monitoring network; however, ozone monitoring will be conducted all year at the Mark Twain State Park (MTSP) site to collect ozone background data need for PSD modeling projects. The current monitoring network is based on the current ozone standard and ground-level ozone air quality monitoring network design requirements.



Missouri Statewide Ozone (O₃) Monitoring Network, 2013 2008 Primary 8-hour NAAOS = 75 Parts per Billion (ppb)

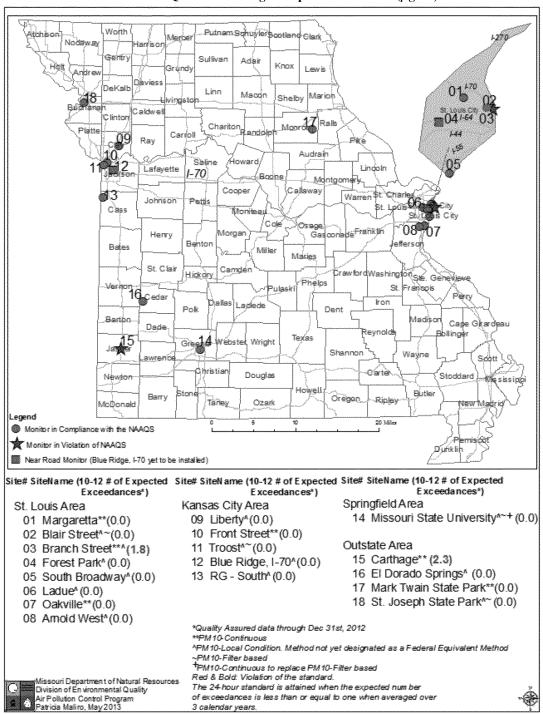
6. PM₁₀ Monitoring Network

6.1 Method Changes

The filter based PM_{10} monitoring at MSU will be replaced by the continuous TEOM® 1405-DF monitor once it receives a PM_{10} FEM designation to increase the temporal availability of PM_{10} NAAQS compliance monitoring in this area and to reduce the cost of operating two PM_{10} methods at the same site. Hourly PM_{10} data will provide more data for particulate matter episode analysis.

As discussed in Section 4, the TEOM-1405-DF monitor has the capability of reporting the PM_{10c} (PM_{10} at local conditions of ambient temperature and barometric pressure) along with the $PM_{2.5}$ FEM measurements. Once the TEOM 1405-DF obtains a PM_{10} FEM designation, the number of Special Purpose NAAQS comparable continuous PM_{10} monitors will increase in the St. Louis area by four (4) sites (Blair St., Ladue, South Broadway and the new Forest Park Near Roadway site) which will bolster the count toward the PM_{10} minimum monitoring requirements in this CBSA to a total count of ten (10) monitors.

Missouri Statewide PM₁₀ Monitoring Network, 2013 24-hour NAAQS = 150 Micrograms per Cubic Meter (µg/m³)



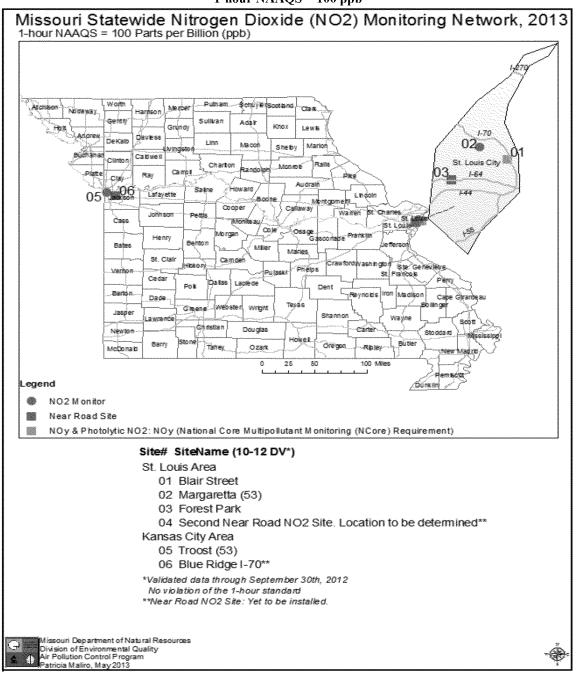
7. Nitrogen Dioxide (NO₂) Monitoring Network

The department added one near-roadway NO₂ monitor to the network at the Forest Park I-40/64 near-roadway monitoring site in January 1, 2013. The Community-wide monitoring network requirement of 40 CFR 58 Appendix D, 4.3.3(a) is satisfied by the existing Troost and Margaretta monitoring sites.

EPA has not identified Missouri as needing one of the minimum of forty additional NO_2 monitoring stations nationwide in any area, inside or outside of CBSAs, above the minimum monitoring requirements, with a primary focus on siting these monitors in locations to protect susceptible and vulnerable populations. This requirement is the responsibility of the respective Regional Administrators working with their respective states consistent with 40 CFR 58 Appendix D, 4.3.4(a).

The department is adding a photolytic NO₂ monitor at the Blair St. NCore site, St. Louis, using one-time Section 103 funding. Photolytic NO₂ monitoring is identified in EPAs' long term monitoring strategy and this monitoring will supplement the NOy monitoring currently being conducted at the NCore site. A photolytic NO₂ monitor is also being operated at the Forest Park near-roadway monitoring site to evaluate the differences between the tradition molybdenum converter based NO₂ method and the photolytic NO₂ method in the near-roadway monitoring environment.

Missouri Statewide Nitrogen Dioxide (NO₂) Monitoring Network, 2013 1-hour NAAQS = 100 ppb



7.2 NO₂ Near-Roadway Monitoring

7.2.1 Near-Road Monitoring Requirements

NO₂: The final rule revising the NAAQS to add the 1-hour standard of 100 ppb (3-year average of annual 98th percentile), signed 1/22/2010 and published 2/9/2010 requires near-road NO₂ monitoring at two sites in the St. Louis CBSA (population 2.8 million) and one site in the Kansas City CBSA (population 2.0 million) (based on population and traffic count). Sites were to be identified in the 7/2012 air monitoring plan and begin operation by 1/1/2013. Because of resource and other constraints, EPA staff proposed a relaxation of this schedule. The schedule was revised in a rulemaking published in the Federal Register on March 14, 2013. The revised rule now requires that the first St. Louis area near-road site begin operation in January 2014, the Kansas City area site begin operation in January 2014, and the second St. Louis area site begin operation in January 2015. Due in large part to receipt of one-time funding for establishment of near-road sites, the department established the first St. Louis area site in January 2013, and the Kansas City area site is being established in the second quarter of calendar year 2013. The second St. Louis area site will be established in January 2015. The complement of instruments at the second St. Louis site will depend on availability of funds, which is uncertain at this time.

The first St. Louis area near-road site, as discussed below, was also discussed in the 2012 network plan, but was not approved by EPA, in part because the 2010 NO₂ rule required approval of near-road monitoring sites by the EPA Administrator. The 2013 revision changed this requirement to approval by the Regional Administrator, consistent with other monitoring approvals. EPA Region VII staff have been informed throughout the process of site selection and establishment and have visited all or most of the prospective sites, so approval of the first St. Louis site and the Kansas City site on the basis of this plan are expected.

<u>CO</u>: The final rule continuing the NAAQS, signed 8/12/2011 and published 8/31/2011 requires near-road CO monitoring (collocated with NO₂ sites) at one site in the St. Louis CBSA by 1/2015 and one site in the Kansas City CBSA by 1/2017. The department intends to establish CO monitoring at the same time as NO₂ monitoring, as described above.

Near-road monitoring stations must be within 50 meters (164 feet) of target road segments to measure expected peak concentrations, and should be within about 20 meters of the roadway. Microscale near-road monitors must have inlets between 2 and 7 meters above ground level.

EPA Guidance

EPA issued a Near-road NO₂ Monitoring Technical Assistance Document (TAD) in June 2012. The TAD is available online at http://www.epa.gov/ttn/amtic/nearroad.html The TAD includes recommendations on site selection that were used in the analysis described below.

7.2.2 Analysis and Site Selection for the St. Louis Area

Traffic counts (annual average daily traffic; AADT) for major highway segments in Missouri are available on a Missouri Department of Transportation (MODOT) website at

http://www.modot.mo.gov/safety/trafficvolumemaps.htm Truck volumes are also indicated for some, but not all highway segments. The maximum 2010 AADT in the St. Louis area is 183,813.

The TAD recommends ranking segments by AADT and also by weighted AADT, where heavy-duty vehicles are weighted a factor of 10 times higher. Table 7.2-1 lists highway segments with AADT greater than 100,000 (and a few additional segments included for continuity). The numbers in the left column are arbitrary location identifiers. Table 7.2-2 adds weighted AADT using truck volumes from the MODOT maps where available and using interpolated or extrapolated truck volumes otherwise.

For the St. Louis area, as shown in Tables 7.2-3 and 7.2-4, the eight segments with highest AADT were the same as the eight segments with the highest weighted AADT.

Figure 7.2-1 shows the locations of these eight segments superimposed on a portion of one of the MODOT AADT maps. The four segments with the highest AADT, unweighted or weighted (no. 39, 40, 41, and 42), are on I-270 between Page Avenue (highway 364) to the north and I-44 to the south. Two of the segments are on I-64 between I-170 to the west and Kingshighway Boulevard to the east, adjacent to the southern boundary of Forest Park. The remaining two segments are on I-70 just west of I-270, and on I-270 between highway 370 on the west and Lindbergh Boulevard on the east.

Figure 7.2-2 shows a wind rose for recent multiple years (2002 to 2006) at the St. Louis airport. The wind rose suggests that a near-road monitoring site would, in general, be best located in a direction from north to east of a target roadway.

Table 7.2-1.

	Louis Area Traffic ked by AADT		
No.	Highway	Location	AADT
41	I270 (n to s)	s of 64	183,813
40	1270 (n to s)	n of 64	176,384
39	1270 (n to s)	-	175,022
42	1270 (n to s)	n of 44	174,973
16	US40/I64 (w to e)	e of 170	173,236
36	1270 (n to s)	e of 370	166,108
6	I70 (west to east)	w of 270	161,338
17	US40/I64 (w to e)		159,326
38	1270 (n to s)	s of 70	157,483
43	1270 (n to s)	s of 44	155,464
5	I70 (west to east)		148,056
14	US40/I64 (w to e)	e of 67	145,940
34	1270 (n to s)	e of 170	141,577
22	144 (w to e)	000	141,541
 8	170 (west to east)	e of 67	140,853
21	144 (w to e)		138,031
- · 15	US40/I64 (w to e)	w of 170	137,403
2	I70 (west to east)	e of 79	135,074
9	170 (west to east)	e of 170	135,061
20	144 (w to e)	0 01 170	134,961
4	I70 (west to east)	e of 94	130,566
13	US40/I64 (w to e)	e of 270	129,909
35	1270 (n to s)	w of 170	126,394
37	1270 (n to s)	w of 170	123,378
3 , 7	170 (west to east)	e of 270	122,444
, 27	155 (n to s)	s of 270	121,525
29	1170 (n to s)	s of 70	121,164
10	170 (west to east)	3 01 7 0	118,591
3	170 (west to east)	e of 370	116,010
ა 1	170 (west to east)	w of 79	115,967
32	1170 (west to east)	n of 64	115,797
52 12	US40/I64 (w to e)	w of 270	113,732
26	155 (n to s)	n of 270	112,984
20 31	1170 (n to s)	11012/0	109,321
33	1270 (n to s)	w of 367	109,321
30	· · · · · · · · · · · · · · · · · · ·	W UI 30/	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	1170 (n to s)	<u> </u>	106,961
28 10	155 (n to s)	0 of 61	101,882
19	144 (w to e)	e of 61	100,841
23	155 (n to s)	s of 64	100,615
11 24	170 (west to east)	c of 11	95,690
24 10	155 (n to s)	s of 44	91,910
18 25	US40/I64 (w to e)		91,109
25	155 (n to s)		86,323

Table 7.2-2.

INIIIA O PANAMANANA	St. Louis Area Traffic Counts > 100,000 AADT (2010) (as entered/unranked)						
No.	Highway	Location	AADT	Truck AADT	Truck/Total	est T/T	adj AADT
1	170 (west to east)	w of 79	115,967			0.117	238,137
2	170 (west to east)	e of 79	135,074	15,811	0.117	0.117	277,373
3	170 (west to east)	e of 370	116,010			0.137	258,658
4	170 (west to east)	e of 94	130,566			0.137	291,112
5	170 (west to east)		148,056			0.137	330,108
6	170 (west to east)	w of 270	161,338			0.137	359,722
7	170 (west to east)	e of 270	122,444	19,125	0.156	0.156	294,569
8	170 (west to east)	e of 67	140,853	17,260	0.123	0.123	296,193
9	170 (west to east)	e of 170	135,061			0.161	330,317
10	I70 (west to east)		118,591			0.146	274,868
11	I70 (west to east)		95,690	19,016	0.199	0.199	266,834
12	US40/I64 (w to e)	w of 270	113,732	10,704	0.094	0.094	210,068
13	US40/I64 (w to e)	e of 270	129,909			0.107	254,972
14	US40/I64 (w to e)	e of 67	145,940	17,486	0.120	0.120	303,314
15	US40/I64 (w to e)	w of 170	137,403	A		0.135	304,829
16	US40/I64 (w to e)	e of 170	173,236	26,152	0.151	0.151	408,604
17	US40/I64 (w to e)		159,326			0.151	375,795
18	US40/I64 (w to e)	TATALON BALLON BALAN MALAA 0000 AAAA AAAA AAAA AAAA AAAAA AAAAA AAAAA AAAA	91,109	MINI 100.2.000 MINI 100.000 MIN		0.151	214,895
19	144 (w to e)	e of 61	100,841			0.117	207,075
20	144 (w to e)		134,961			0.117	277,140
21	144 (w to e)		138,031	16,157	0.117	0.117	283,444
22	144 (w to e)		141,541			0.117	290,652
23	155 (n to s)	s of 64	100,615			0.131	219,346
24	155 (n to s)	s of 44	91,910	12,051	0.131	0.131	200,369
25	155 (n to s)		86,323		,	0.131	188,189
26	I55 (n to s)	n of 270	112,984			0.131	246,312
27	155 (n to s)	s of 270	121,525			0.131	264,931
28	155 (n to s)		101,882			0.131	222,109
29	I170 (n to s)	s of 70	121,164			0.137	270,287
30	I170 (n to s)		106,961			0.137	238,604
31	I170 (n to s)		109,321		MARINE MARINE MARINE AND ASSESSED ASSESSED AND ASSESSED ASSESSED ASSESSED ASSESSED ASSESSED ASSESSED ASSESSED	0.137	243,868
32	I170 (n to s)	n of 64	115,797			0.137	258,315
33	1270 (n to s)	w of 367	108,774	20,059	0.184	0.184	289,305
34	1270 (n to s)	e of 170	141,577		0.20	0.151	333,626
35	1270 (n to s)	w of 170	126,394	**************************************	\$1500 (010000010 A D. 1500) A D. 1500 (A D. 1500) A D. 1500 (A D. 1500)	0.151	297,848
36	1270 (n to s)	e of 370	166,108			0.151	391,434
37	1270 (n to s)	w of 370	123,378			0.151	290,740
38	1270 (n to s)	s of 70	157,483	18,431	0.117	0.117	323,362
39	1270 (n to s)	50175	175,022	10,431	J.11,	0.153	416,802
40	1270 (n to s)	n of 64	176,384			0.153	420,046
41	1270 (If to s)	s of 64	183,813			0.153	437,738
42	1270 (n to s)	n of 44	174,973	33,236	0.190	0.133	437,736
43	1270 (n to s)	s of 44	155,464	18,198	0.190	0.190	319,246
+J	12/0 (11 to 5)	3 U1 44	133,404	10,178	U.117	0.117	313,240
		.5		average	0.140	0.138	

Table 7.2-3.

St. L	ouis Area Traffic	Counts > 1	100,000 AADT (2010)
Ranked by AADT			
No.	Highway	Location	AADT
41	1270 (n to s)	s of 64	183,813
40	I270 (n to s)	n of 64	176,384
39	I270 (n to s)	A CONTRACTOR OF THE CONTRACTOR	175,022
42	I270 (n to s)	n of 44	174,973
16	US40/I64 (w to e)	e of 170	173,236
36	I270 (n to s)	e of 370	166,108
6	I70 (west to east)	w of 270	161,338
17	US40/I64 (w to e)		159,326

Table 7.2-4.

St. L	ouis Area Traffic	Counts > 1	100,000 A	ADT (2010)	
Ran	ked by adjusted AAI	DT, trucks =	14% (ave	rage)	annonna.
No.	Highway	Location	AADT	Adj. AADT	
41	I270 (n to s)	s of 64	183,813	415,417	
40	I270 (n to s)	n of 64	176,384	398,628	
39	I270 (n to s)		175,022	395,550	
42	I270 (n to s)	n of 44	174,973	395,439	
16	US40/I64 (w to e)	e of 170	173,236	391,513	
36	I270 (n to s)	e of 370	166,108	375,404	
6	I70 (west to east)	w of 270	161,338	364,624	***************************************
17	US40/I64 (w to e)		159,326	360,077	

Figure 7.2-1

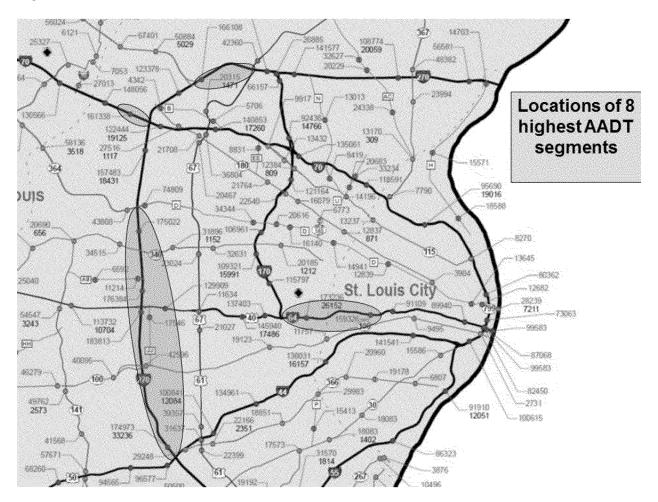
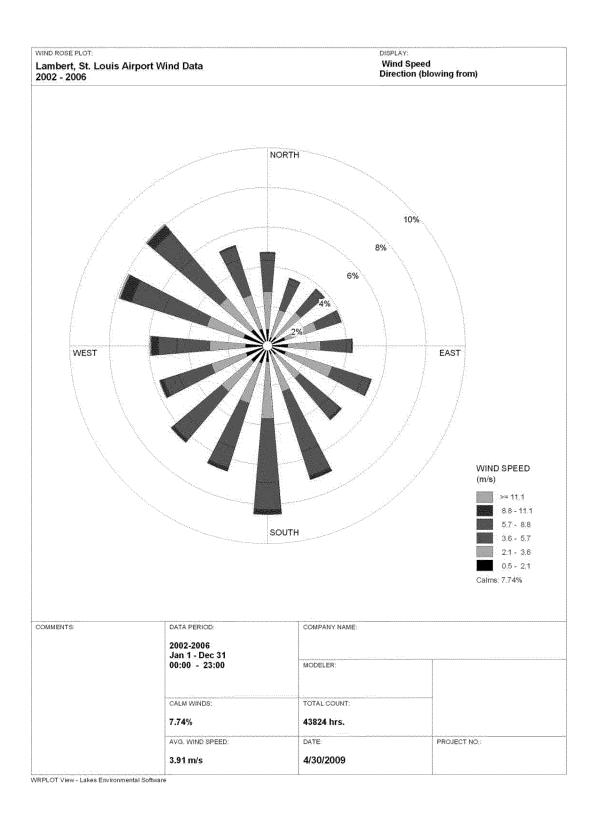


Figure 7.2-2.



Field Evaluation and Description of Potential St. Louis Area Monitoring Sites

On December 22, 2011 Missouri Department of Natural Resources Air Pollution Control Program (APCP) and Environmental Services Program (ESP) staff visited potential monitoring sites in the vicinity of the highway segments identified above. On February 15, 2012, APCP staff revisited some of the sites with Mr. Leland Grooms, Air Monitoring Team Leader for EPA Region VII. This section presents discussion of the suitability of the sites.

<u>I-270 north of I-44:</u> The area near I-270 just north of I-244 is heavily wooded. It is also somewhat hilly. No suitable monitoring sites were identified in this area.

I-270 north of I-64: The Saint Johns Mercy Medical Center complex is on McCauley Drive in Creve Coeur, adjacent to (east of) I-270 and about ½ mile north of I-64. The area between McCauley Drive and I-270 is at the same level as the roadway, and would meet siting criteria for a near-road monitoring station. This location is in a desirable direction (E) from and in close proximity (25 meters) to the section of highway with the highest AADT in the St. Louis area, and also not far (about 1 kilometer) from another highway with high AADT. The potential for congestion may be less than that for the Forest Park area because of the higher number of traffic lanes. It may be difficult to secure permission to locate an air monitoring station in the landscaped area adjacent to the highway. The division between MODOT and hospital property is not obvious. This location would provide some indication of the exposure of a sensitive population because of its proximity to the medical center and to nearby residential areas.

<u>I-64 between I-270 and Kingshighway Boulevard (Forest Park):</u> Forest Park in St. Louis is bounded by Skinker Boulevard on the west, Lindell Boulevard on the north, Kingshighway Boulevard on the east, and I-64 on the south. Two locations near the southeast corner of the park were identified that would meet siting criteria, adjacent to the St. Louis Mounted Police barn near the planetarium, and near the greenhouses behind park office buildings (see Figures 7.2-3). This location is in the desired direction (N) from and in close proximity (20 to 25 meters) to a highway with high AADT and high potential for congestion. This location would provide some indication of population exposure, since there is a jogging or biking trail along the park boundary adjacent to the highway, and hospital complexes to the east of Forest Park.

<u>I-70 west of I-270</u>: Rider Trail S. and Hollenberg Drive (same street, changes name) is roughly parallel to and north of I-70 in Bridgeton between I-270 to the east and Earth City Expressway to the west. Two locations in this area were identified that would meet siting criteria, near the southeast corner of the CAPS Inc. building, and across the street from the Marriott Courtyard. Either of these locations is in a desirable direction (N) from and in relatively close proximity (20 to 30 meters) to a highway segment with a relatively high AADT but less potential for congestion than the Forest Park location. The difficulty of securing permission to locate an air monitoring station is unknown. The area near this location is primarily commercial and residential, so would provide some indication of population exposure.

<u>I-270 east of Highway 370 and west of Lindbergh Boulevard:</u> Two locations in this general area were identified that would meet siting criteria. One area is in Hazelwood at the end of Brookes Drive on the south side of I-270, adjacent to Bommarito Volkswagen and Brookes Park. This location is in a non-optimal direction (S) from a highway segment with high AADT and potential

congestion, but not as close (30 meters) to the highway as some of the other sites evaluated. The difficulty of securing permission to locate an air monitoring station is unknown. The area near this location is primarily commercial and residential, so would provide some indication of population exposure.

The second area is on the north side of I-270, southeast of the Prairie Commons Branch Library, north of Dunn Road, east of Utz Lane, southwest of Hazelwest Drive, in either Hazelwood or an unincorporated area of St. Louis County. The location near the library is in a desirable direction (N) from a highway segment with high AADT and potential congestion, but not as close (35 meters) to the highway as some of the other sites evaluated because of a frontage road between the site and the highway. The difficulty of securing permission to locate an air monitoring station might be less than at some sites if the location is on the library property. The area near this location is primarily commercial and residential, so would provide some indication of population exposure.

St. Louis Area Site Ranking

Some of the characteristics of each location are summarized in Table 7.2-5, which lists the locations in order of ranking. The table includes an indicator of the potential for congestion at each location, the ratio of AADT to number of traffic lanes (as suggested in the TAD).

As discussed above, truck counts are not available for all road segments and so were estimated by interpolation or extrapolation. Unfortunately, none of the road segments immediately adjacent to the locations of interest have truck counts, but only estimated truck fractions. The estimated fractions are not different enough to discriminate between locations on that basis.

An additional consideration, not shown in the table, is the potential likelihood of securing permission from landowners for location of an air monitoring station.

Based on AADT, congestion, distance and direction from the roadway, and likelihood of securing permission to locate a monitoring station, the locations are ranked in approximately the order listed in Table 7.2-5. Based in part on the February 15, 2012 site visits, EPA Region VII staff generally approved all of the sites and identified the site in Forest Park as first choice, consistent with this evaluation.

Table 7.2-5.

DARRIDA-AMILIARELIARELIARELIARELIARELIARE	Hemrerralementer	Summaryan	d Approxin	nateRanking of	THE STATE OF THE S	III/MIIIIII/AAAAAAAAAAAAAAAAAAAAAAAAAAA	
anamina and an anamana and an					Estimated	Approx. Distance	Direction
Location	Highway	ay AADT Lane	Lanes	s AADT/Lanes	Truck Fraction	to Roadway (m)	from Roadway
Forest Park	64	159,326	8	19,916	0.151	20-25	N
Hospital	270	176,384	12	14,699	0.153	25	E
CAPS/Courtyard	70	161,338	11	14,667	0.137	20-30	N
Library	270	166,108	8	20,764	0.151	35	N
Brookes	270	166,108	9	18,456	0.151	30	S

Selection of First St. Louis Area Site

ESP staff contacted St. Louis City Parks staff by telephone in late February 2012 and discussed the possibility of locating an air monitoring site in Forest Park adjacent to Interstate 64. On March 1, 2012, ESP staff met with St. Louis City Parks staff in Forest Park. During that visit, a specific site to the west of the greenhouses was identified which is acceptable to City Parks staff (see Figures 7.2-4 and 7.2-5). The monitoring site is elevated a few feet above the level of the roadway, but not enough to be a concern. Based on the analysis and site visits described above, including communication with and site visits by EPA, APCP recommends approval of the Forest Park site as the first near-road monitoring site for the St. Louis area. Agreement for use of this site has been negotiated between Missouri Department of Natural Resources and St. Louis City, and operation of this site began on January 1, 2013.

Second St. Louis Area Site

The second St. Louis area site, which will begin operation in January 2015, will probably be selected from one of the candidate sites identified above or at least from the areas identified above. One consideration will be selection of a site with different traffic patterns and/or a different mix of vehicles than the Forest Park site. Selection of this site will be coordinated with EPA Region VII staff and discussed in more detail in next year's monitoring network plan. The complement of instrumentation at this site will depend on the availability of funds and will also be discussed with EPA Region VII staff and in the next monitoring network plan.

Figure 7.2-3. Aerial photographs of Forest Park in St. Louis and I-64 (along the southern edge of the park). The lower photograph shows the identified location for an air monitoring station near the greenhouses in Forest Park. The arrow extends from the area of interest in one photograph to the same area in the other photograph.

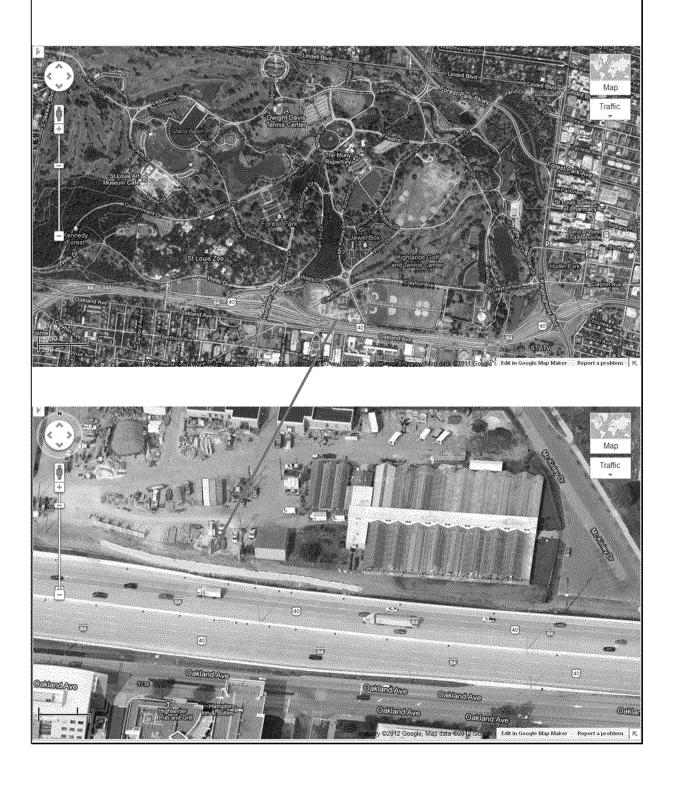
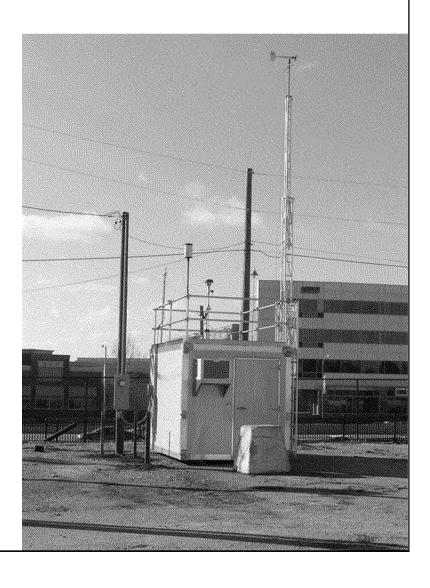


Figure 7.2-4. Looking east along Interstate64 (beforesite installation). The monitoring site was installed in the paved area inside the fence to the left. The jogging or biking path along the park perimeter extends straight ahead, and Interstate 64 is to the right.



Figure 7.2-5. The Forest Park monitoring station, looking south across Interstate 64.



2013 Monitoring Network Plan Rev. 0, May 23, 2013

7.2.3 Analysis and Site Selection for the Kansas City Area

Analysis for the Kansas City area was done similarly to that described above for the St. Louis area. Table 7.2-6 lists highway segments with AADT greater than 50,000. The maximum 2010 AADT in the St. Louis area is 152,856. Table 7.2-7 adds weighted AADT using truck volumes from the MODOT maps where available and using interpolated or extrapolated truck volumes otherwise.

For the Kansas City area, as shown in Tables 7.2-8 and 7.2-9, the eight segments with highest weighted AADT were the same as eight of the ten segments with the highest AADT (highlighted in Tables 7.2-6, 7.2-8, and 7.2-9).

Figure 7.2-6 shows the locations of these eight segments superimposed on a portion of one of the MODOT AADT maps. Four of the segments are on I-70 extending from I-435 on the west to a point between I-470 and Highway 7 on the east. Two of the segments are on I-435 between the Missouri/Kansas state line on the west and Highway 71 on the east. Two additional segments are on I-70 east of I-29 and on I-35 south of I-670, both in the central Kansas City area, shown on the inset map in the figure.

Figure 7.2-7 shows a wind rose for recent multiple years (2002 to 2006) at the Kansas City airport. The wind rose suggests that a near-road monitoring site would, in general, be best located north of a target roadway.

Evaluation of Kansas City Area Sites

Based on review of aerial photographs of the identified segments and on a brief visit to the areas, suitable monitoring sites were most likely to be found in the first two areas described above, I-70 between I-435 on the west and a point between I-470 and Highway 7 on the east and I-435 between the Missouri/Kansas state line on the west and Highway 71 on the east. Aerial photographs of these two areas are shown in Figures 7.2-8 and 7.2-9. On July 25, 2012 department staff visited potential near-road nitrogen dioxide (NO₂) monitoring sites in the Kansas City, Missouri area in the two areas described above. Each of these highway segments lies in a west-east direction, and the wind rose for the Kansas City area indicates that the best location for a downwind air monitoring site would be on the north side of the highway. Four candidate monitoring sites were identified, two adjacent to each of these highway segments. The candidate sites are described below.

Adjacent to Vatterott College: Vatterott College is a two-story building located at 8955 E. 38th Terrace, west of Blue Ridge Cutoff, on the north side of Interstate 70, across the highway from Kauffman Stadium. The rear of the building is parallel to the highway, about 20 to 25 meters from the edge of the highway. A chain link fence is parallel to the rear of the building, about 5 to 8 meters from the building or 15 to 18 meters from the edge of the highway. The building would be a barrier to the north of a potential monitoring site, but the building lies to the north of the highway, so a monitoring site in this area would have good exposure to the highway. A possible monitoring site might be on the north side of the fence or near the west end of the building on the highway side of the fence. A site on the highway side of the fence would require coordination with the Missouri Department of Transportation (MODOT) and installation of an

access gate in the fence and possibly of safety barriers. Vatterott College was in the process of moving to a new campus which ruled out negotiating a long term property access agreement.

Adjacent to Sterling Court Apartments: Sterling Court apartments are located on Harvard Lane and Harvard Circle, west of Sterling Avenue, south of U. S. 40, and adjacent to the north side of Interstate 70. A parking lot is south of the apartment buildings and is separated from the highway by a chain link fence. The fence is about 10 to 20 meters from the edge of the highway. A possible monitoring site might be in the parking lot adjacent to the fence.

Adjacent to Molle Volkswagen Service Department: The Molle Volkswagen Service Department is located near the south end of Summit Street, in a complex of automobile dealerships south of 103rd Street, east of State Line Road, west of Wornall Road, and north of Interstate 435. The parking area south of the building is separated from the highway by a chain link fence. The fence is about 25 meters from the edge of the highway. Trees along the fenceline would make a location north of the fence unsuitable for air monitoring, but a suitable location could be found in the grassy area south of the fence and of the trees. A site on the highway side of the fence would require coordination with MODOT and installation of an access gate in the fence and possibly of safety barriers. Similar locations exist adjacent to other automobile dealerships in the area, but dense parking of new cars would make access the area adjacent to the highway more difficult near the other dealerships.

Near the Pinnacle Career Institute: The Pinnacle Career Institute is located at 1001 E. 101st Terrace, east of Holmes Road, and north of Interstate 435. The potential monitoring site is in a grassy area adjacent to the southeast corner of the parking lot, separated from the highway by a chain link fence. The portion of the fence that parallels the highway is about 23 meters from the edge of the highway. This location is elevated about 6 meters above the highway, which would make it difficult to meet the recommendation for a sampling inlet 2 to 7 meters above the road level.

Identification and descriptions of these four sites was communicated to EPA Region VII staff, who visited some or all of the sites.

Selection of Kansas City Area Site

Based on review of site characteristics and discussions with Missouri Department of Transportation (MODOT) representatives and with property owners, one of these four sites appeared to be the most promising candidate and has been selected. That site is on the property of Sterling Court Apartments (Figure 7.2-10). On September 19, 2012 department staff met with the manager and owner of the Sterling Court Apartments and determined that they were agreeable to installation and operation of a monitoring site on their property at a location near the southwest corner of the parking area adjacent to the fence. The fence in that area is about 20 meters from the edge of the roadway. The approximate location of the monitoring site is indicated by the tip of the red arrow in the aerial photograph in Figure 7.2-11. The apartment owner was also agreeable to removal of trees on their property as needed to meet monitor siting criteria, and MODOR was also agreeable to removal of trees along the fenceline. Removal of trees was necessary to meet siting criteria and provide unimpeded airflow from the highway to the monitoring site. Tree removal was completed at the site in December 2012 and January

2013. Figure 7.2-13 shows a view of Interstate 70 from the site following completion of tree removal. Figure 7.2-14 shows the monitoring shelter installed at the site in May 2013. Operation is expected to begin during the second quarter of calendar year 2013. This site will be called the Blue Ridge I-70 site.

Table 7.2-6

	ked by AADT	Traffic Counts	-,		
		14!	A A P. T		
	Highway 1435S	Location	4ADT		
13 46		e of st l	152,856		
	170	e of 670	135,266		
12	1435S	bet 71 & st I	129,464		ļ
22		s of 670	118,097		
49		e of 435	114,495		
	170		114,034		
8	1435E	n of 70	103,008		ļ
35	1670	e of 35	99,388		
52		e of 470	98,488		
51	B	w of 470	98,244		-
26	71		93,692	00	
20	129/135	s of 24	92,249		-
44	170	at 29/35/70?	92,249		
7	1435E	s of 24	90,778		
25	71		90,385		
29	71	s of 50	89,131		
9	1435E	s of 70	88,710		
48	170	w of 435	85,528		
3	129	w of 169	83,933		
6	1435E	s of 210	82,545		
23	135	e of st l	80,181		
43	170	e of 169	79,980		
45	170	s of 29/35/70	77,323		
2	129	s of 152	75,952	***************************************	
30	71		74,995		****************
39	1470	e of 71	74,891		1
24	71	s of 670	73,392		1
10	1435E	s of 350	73,354		
19	129/135	n of 24	72,054		1
31	71	n of 150	71,248		
32	71	s of 150	69,724		
47	170		69,715		ļ
53	170	w of 7	69,390		
40	50	s of 470	69,228	^	
40 16	135	w of 1	68,634		
42	170	e of st l	68,318		
42 28	71	n of 435	67,735		-
20 11	1435E	n of 71			
4	1435E 129	w of 35	66,386 65,994		-
4 27		พบเงอ			
2 <i>1</i> 36	71 1470	e of 40	65,107		
		s of 40	64,739		
5	1435E	s of 35	63,464		
34	1670	w of 35	61,233		
33	1670	e of st l	61,208		
37	1470		59,514		-
18	129/135	s of junction	59,044		,
38	1470	e of 50	58,863		
21	135	s of 70	58,389		
14	135	s of 152	56,716		
41	50	w of 291	55,759		
17	135	e of 29	53,185		
15	135	w of 435E	52,884		
1	1435/129	near MCI	50,153		

Table 7.2-7

	Kansas City Area Traffic Counts > 50,000 AADT (2010) (as entered/unranked)										
No.	Highway	Location	AADT	Truck AADT	Truck/Total	est T/T	adj AAD1				
1	1435/129	near MCI	50,153			0.058	76,147				
2	129	s of 152	75,952	4,374	0.058	0.058	115,318				
3	129	w of 169	83,933			0.058	127,436				
4	129	w of 35	65,994			0.058	100,199				
5	1435E	s of 35	63,464			0.115	128,902				
6	1435E	s of 210	82,545	9,457	0.115	0.115	167,658				
7	1435E	s of 24	90,778			0.135	200,886				
8	1435E	n of 70	103,008			0.135	227,951				
9	1435E	s of 70	88,710			0.135	196,310				
10	1435E	s of 350	73,354	11,368	0.155	0.155	175,666				
11	1435E	n of 71	66,386			0.155	158,979				
12	I435S	bet 71 & st I	129,464			0.155	310,037				
13	I435S	e of st l	152,856			0.155	366,055				
14	135	s of 152	56,716			0.166	141,604				
15	135	w of 435E	52,884	5,748	0.109	0.109	104,616				
16	135	w of 1	68,634	14,388	0.210	0.210	198,126				
17	135	e of 29	53,185	Y	/h	0.162	130,779				
18	129/135	s of junction	59,044	6,765	0.115	0.115	119,929				
19	129/135	n of 24	72,054			0.155	172,584				
20	129/135	s of 24	92,249	***************************************		0.155	220,955				
21	135	s of 70	58,389			0.155	139,853				
22	135	s of 670	118,097			0.155	282,866				
23	135	e of st l	80,181			0.155	192,049				
24	71	s of 670	73,392			0.067	117,333				
25	71		90,385	hatiy—azvaniraldı.—amiralalı		0.067	144,500				
26	71		93,692			0.067	149,787				
27	71		65,107	A		0.067	104,088				
28	71	n of 435	67,735	4,506	0.067	0.067	108,289				
29	71	s of 50	89,131		0.007	0.067	142,495				
30	71	30130	74,995	<u>,</u>		0.067	119,896				
31	71	n of 150	71,248			0.067	113,905				
32	71	s of 150	69,724			0.067	111,469				
33	1670	e of st l	61,208			0.195	168,885				
34	1670	w of 35	61,233	11,969	0.195	0.195	168,954				
35	1670	e of 35	99,388	15,812	0.159	0.159	241,696				
36	1470	s of 40		10,061	0.155	0.155	······				
30 37		5 01 40	64,739	10,001	0.133		155,288				
	1470		59,514	X		0.135	131,817				
38	1470	e of 50	58,863	0.500	0.445	0.135	130,375				
39	1470	e of 71	74,891	8,580	0.115	0.115	152,111				
40	50	s of 470	69,228			0.115	140,609				
41	50	w of 291	55,759			0.115	113,252				
42	I70	e of st l	68,318	13,354	0.195	0.195	188,504				
43	170	e of 169	79,980			0.195	220,681				
44	170	at 29/35/70?	92,249	A-1, A		0.195	254,534				
45	170	s of 29/35/70	77,323			0.195	213,350				
46	170	e of 670	135,266	26,440	0.195	0.195	373,226				
47	170		69,715			0.226	211,641				
48	170	w of 435	85,528			0.226	259,647				
49	170	e of 435	114,495			0.226	347,585				
50	170		114,034			0.226	346,185				
51	170	w of 470	98,244			0.226	298,250				
52	170	e of 470	98,488	25,305	0.257	0.257	326,233				
53	170	w of 7	69,390			0.257	229,848				

Table 7.2-8

Kan	sas City Area	Traffic Counts	> 50,000 AA	DT (2010)
Ranked by AADT			AND AND AND POSTER STREET STREET, AND	
No.	Highway	Location	AADT	
13	I435S	e of st I	152,856	e
46	170	e of 670	135,266	77 (
12	I435S	bet 71 & st I	129,464	
22	135	s of 670	118,097	
49	I 70	e of 435	114,495	
50	I70		114,034	
8	I435E	n of 70	103,008	
35	1670	e of 35	99,388	
52	170	e of 470	98,488	
51	170	w of 470	98,244	2111111

Table 7.2-9

Kan	sas City Area	a Traffic Counts	> 50,000	AADT (2010)				
Ranked by adjusted AADT, trucks=14% (average)								
No.	Highway	Location	AADT	Adj. AADT				
46	170	e of 670	135,266	373,226				
13	1435S	e of st I	152,856	366,055				
49	170	e of 435	114,495	347,585				
50	170	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	114,034	346,185				
52	I 70	e of 470	98,488	326,233				
12	1435S	bet 71 & st I	129,464	310,037				
51	170	w of 470	98,244	298,250				
22	l35	s of 670	118,097	282,866				
48	170	w of 435	85,528	259,647				
44	l70	at 29/35/70?	92,249	254,534				

Figure 7.2-6

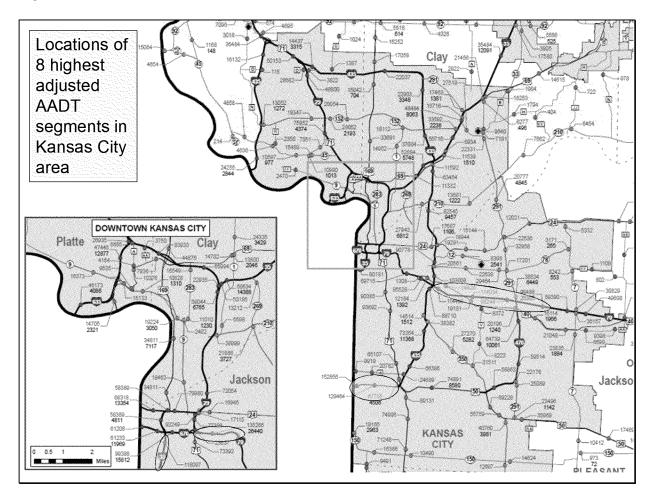


Figure 7.2-7

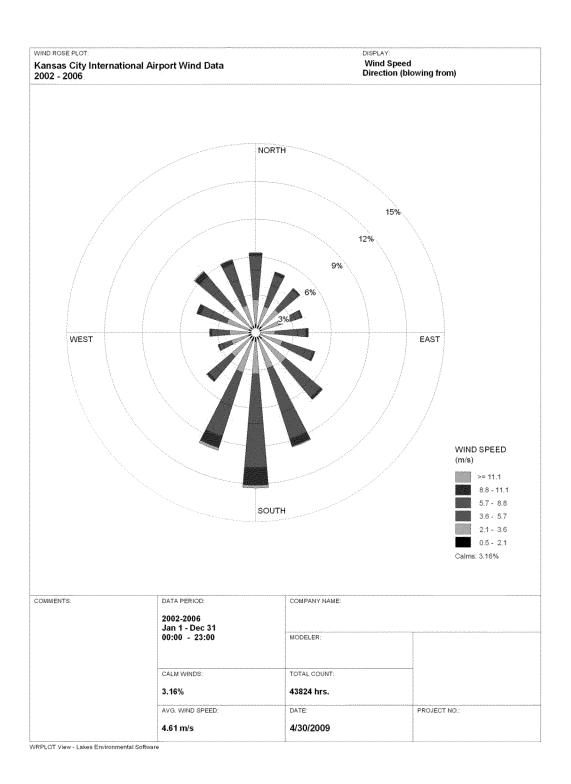


Figure 7.2-8. Aerial photograph of the I-70 area of interest between I-435 on the west and a point between I-470 and Highway 7 on the east.



Figure 7.2-9. Aerial photograph of the I-435 area of interest between the state line on the west (indicated by State Line Road) and the interchange on the east.





Figure 7.2-10. Location of Sterling Court Apartments in Kansas City (indicated by the red rectangle), north of Interstate 70, south of US 40, and west of Sterling Avenue.



Figure 7.2-11 a and b. Sterling Court Apartments and Interstate 70. The approximate location of the monitoring site is near the southwest corner of the parking area along the fence across the middle of the picture, indicated by the tip of the red arrow. A view from Interstate 70, showing the trees that have subsequently been removed, is shown below.





Figure 7.2-12 Looking south at Interstate 270 from the Blue Ridge monitoring site following tree removal.



Figure 7.2-13. The monitoring shelter installed at the Blue Ridge site, looking south across Interstate 70.

8. Carbon Monoxide (CO) Monitoring Network

The department has added one near-roadway CO monitor to the network at the Forest Park I-40/64 near-roadway monitoring site (see location map in section 7.1). This monitor will satisfy the minimum near-roadway monitoring requirements for the St. Louis MO-IL CBSA. Changes to CO monitoring requirements were published in the Federal Register: August 31, 2011 (Volume 76, Number 169). These rules require near-roadway CO monitoring at a subset of the near-roadway NO₂ monitoring network in CBSAs with populations of 1 million or more.

The department also intends to add one CO monitor at the Kansas City near-roadway monitoring site. Consult section 7.2 for a discussion about the Kansas City area near-roadway monitoring site.

9. Rural National Core

EPA expressed interest in pursuing the installation and operation of a rural NCore site in Missouri. Department staff suggested EPA evaluate the Mark Twain State Park Site as a candidate for consideration of the rural NCore site due to its location and the historically low PM₁₀ and SO₂ concentrations measured at the site. EPA is considering providing up-front one-time equipment purchases and continued operation and maintenance funds to support this project. Since this project would be in addition to existing NCore monitoring requirements which the state of Missouri has satisfied at the Blair St. site, the department is waiting for EPA to identify specifically what funding will be available for this project before committing resources to the project. The department will continue to work with EPA Region VII staff to pursue this project at some time in the future.

Currently the department is conducting background monitoring for SO₂, PM₁₀, and Ozone for PSD projects at the MTSP site and is also upgrading some of the infrastructure at the site to maintain compliance with siting criteria. This data also provides background ambient air monitoring data for other potential modeling purposes and other analysis.

Network Description/Components

See Appendix 1 for the Network Description, which includes the following components.

Site Data

All ambient air monitoring sites are recorded in the EPA's Air Quality System database. Data includes location data such as latitude & longitude.

Air Quality System Site Code

The site code includes a numerical designation for State, county, and individual site. The state and county codes are assigned a number based on the alphabetical order of the State or county. Site numbers are assigned sequentially by date established in most counties. St. Louis County sites also have a division for municipality within St. Louis County.

Street Address

The official Post Office address of the lot where the monitors are located. Because not all sites are located in cities or towns, the street address is occasionally given as the intersection of the nearest streets or highways.

Geographical Coordinates

The coordinate system used by Missouri Department of Natural Resources is latitude and longitude.

Air Quality Control Region

Air Quality Control Regions, or AQCR, are defined by EPA and designates either urban regions, like St. Louis or Kansas City, or rural sections of a state, such as northeast or southwest Missouri.

<u>AQCR</u>	<u>AQCR Name</u>
070	Metropolitan St. Louis
094	Metropolitan Kansas City
137	Northern Missouri
138	SE Missouri
139	SW Missouri

Core Based Statistical Area

Core Based Statistical Areas, or CBSA are defined by the U.S. Census Bureau.

CBSA Code	CBSA Name
00000	Not in a CBSA
16020	Cape Girardeau-Jackson, MO-IL
17860	Columbia, MO
27620	Jefferson City, MO
27900	Joplin, MO
28140	Kansas City, MO-KS
41140	St. Joseph, MO-KS
41180	St. Louis, MO-IL
44180	Springfield, MO

Monitor Data

Each monitor is designed to detect a specific chemical pollutant or group of related pollutants. A site may have one or many monitors and not all sites will have the same monitors.

Pollutant

The common name of the pollutant. "Criteria" pollutants are defined by statute in the Clean Air Act.

Air Quality System Pollutant Code

Each pollutant has a specific numerical code to distinguish it from others. One monitor in St. Louis City uses a code of '00000' because the monitor detects an entire group of chemicals, volatile organic pollutants, which are too numerous to list individually.

D 11 G 1	D 11
Pollutant Code	Pollutant Visit O
00000	Volatile Organic Compounds, or VOCs
14129	Lead – Local Conditions
42101	Carbon Monoxide
42401	Sulfur Dioxide
42406	Sulfur Dioxide 5-min
42600	Reactive Oxides of N (NOY)
42601	Nitric Oxide
42602	Nitrogen Dioxide
42603	Oxides of Nitrogen
44201	Ozone
61103	Resultant Wind Speed
61104	Resultant Wind Direct
62101	Outdoor Temperature
62107	Indoor Temperature
62201	Relative Humidity
63301	Solar Radiation
64101	Barometric Pressure
68105	Average Ambient Temperature
68108	Sample Baro Pressure
81102	PM_{10}
84313	Black Carbon
85101	PM_{10} - LC
85129	Lead PM10 LC - FRM/FEM
86101	PMCoarse - LC (FRM Diff)
86502	Acceptable PMCoarse - LC
88101	PM _{2.5} FRM
88500	PM _{2.5} Tot Atmospheric
88501	PM _{2.5} Raw Data
	
	· •
88502 88503	PM _{2.5} AQI/Speciation PM _{2.5} Reference

Parameter Occurrence Code

The Parameter Occurrence Code (POC) distinguishes between different monitors for the same pollutant, most often collocated monitors used for precision and quality assurance. For PM_{2.5}, different parameter occurrence codes are assigned to FRM, collocated FRM, continuous, and speciation monitors.

Collocated

Collocated monitors are used for precision and quality assurance activities, and for redundancy for critical pollutants such as ozone.

Sampling Frequency

Sampling frequency varies for each pollutant, depending on the nature of the NAAQS standard and the technology used in the monitoring method. Most gaseous pollutants, PM_{2.5} and PM₁₀ monitors use continuous monitoring FEM methods and are averaged over one hour. Some particulate pollutants are filter-based FRM methods and averaged over one day.

Scale of Representation

Each monitor is intended to represent an area with similar pollutant concentration. The scales range from only a few meters to many kilometers.

- MIC Microscale defines the concentration in air volumes associated with area dimensions ranging from several meters up to about 100 meters.
- MID Middle defines the concentration typical of areas up to several city blocks in size with dimensions ranging from about 100 meters to 0.5 kilometers.
- NBR Neighborhood defines concentrations within an extended area of a city that has relatively uniform land use with dimensions in the 0.5 to 4.0 kilometers.
- <u>URB</u> <u>Urban</u> defines an overall citywide condition with dimensions on the order of 4 to 50 kilometers.
 - <u>REG</u> <u>Regional</u> defines air quality levels over areas having dimensions of 50 to hundreds of kilometers.

Monitor Type

The monitor's administrative classification as determined by the purpose for the monitor in the agency sampling strategy. Assignment of monitor types "NCORE" and "PAMS" is limited to EPA Headquarters and is done only after a complete review and approval is done for all site/monitor metadata.

Code	Description
IMPROVE	IMPROVE or IMPROVE Protocol
INDEX SITE	(not currently used by MO)
INDUSTRIAL	Used to indicate sites operated by an industry Primary
	Quality Assurance Organization (PQAO)
NATTS	National Air Toxics Trends Station

2013 Monitoring Network Plan Rev. 0, May 23, 2013 NON-EPA FEDERAL (not currently used by MO)

NON-REGULATORY Not used for NAAQS Compliance

PAMS (not currently used by MO)

PROPOSED NCORE

QA COLLOCATED Collocated to Satisfy 40 CFR Part 58, Appendix A

SLAMS State or Local Air Monitoring Station

SPECIAL PURPOSE Special Purpose Monitoring Station (SPM or SPMS)

SUPLMNTL SPECIATION

TRENDS SPECIATION

TRIBAL MONITORS (not currently used by MO)
UNOFFICIAL PAMS (not currently used by MO)

State Monitoring Objective

Each monitor has a distinct objective such as providing real-time data for public awareness or use in determining compliance with regulations. The state monitoring objective provides more information about the purpose of the monitoring in addition to the monitor objective required of 40 CFR 58.10(a)(6).

State	Ohi	ective	Code	Ob:	ective
State	$\mathcal{O}_{\mathcal{O}}$	CCLIVC	Couc	~ 0	CCLIVC

AQI Public Information
COM NAAQS Compliance
MET Meteorological Data

RES Research STA State Standard

Units

The physical terms used to quantify the pollutant concentration, such as parts per million or micrograms per cubic meter.

Unit Code	Unit Description
001	\Box g/m ³
007	parts per million
800	parts per billion
012	miles per hour
013	knots
014	degree, compass
015	degree Fahrenheit
017	degree Celsius
018	Langleys
019	percent humidity
022	inches Mercury
025	Langleys per minute
079	Watts/m ²
105	\Box g/m ³ LC
121	parts per trillion

Monitoring/Analytical Method

Each monitor relies on a scientific principle to determine the pollutant concentration, which is described by the sampling method. Each method code is specific for a particular pollutant; therefore a three numeral code may be used for different methods for different pollutants. This is required of 40 CFR 58.10(a)(3).

Monitoring Objective

This is the primary monitoring objective(s) for the monitoring parameter required of 40 CFR 58.10(a)(6). The monitoring Objective is specific to the pollutant. Some sites may have more than one monitoring objective, but the primary objective is listed first.

APPENDIX 1: MISSOURI MONITORING NETWORK DESCRIPTION

Missouri Ambient Air Monitoring Network



MICMicroscale1 to 100 square metersMIDMiddle0.1 to 0.5 square kilometerNBRNeighborhood0.5 to 4 square kilometersREGRegional> 10 square kilometers, ruralURBUrban4 to 50 square kilometers, city

COM NAAQS Compliance MET Meteorological Data N/A Not Applicable

NCore National Multi-Pollutant Monitoring Stations

NON-A Non-Ambient Site NON-R Non-Regulatory RES Research

SLAMS State and Local Monitoring Stations

SIP State Implementation Plan

SPEC Speciation STA State Standard

SPM Special Purpose Monitoring

Tuesday, May 21, 2013 Page 1 of 49

AQS Site Number **29-077-0037**

James River South, Springfield, MO 65804

Latitude:

37.104461

139 AQCR:

7920

SW Missouri

Longitude:

-93.25339

MSA:

Springfield, MO

Elevation (ft): 1227

Pollutant	AQS Code	Monitor Type		Col	Freq	Scale	State- Obj	Unit- Code	Unit	Method Code	L Method	Monitor- Objective
Sulfur Dioxide	42401	Industrial	3		1	MID	COM	800	ppb	060	Pulsed Fluorescent	Source Oriented
Sulfur Dioxide Max 5-m Avg	nin 42406	Industrial	3		1	MID	COM	800	ppb	060	Pulsed Fluorescent	Source Oriented

AQS Site Number 29-077-0040

1234 Wildwood Lane, Springfield, MO 65804

Latitude:

37.108889

AQCR:

139

SW Missouri

Longitude:

-93.252778

MSA:

7920

Springfield, MO

Elevation (ft): 1231

Pollutant	AQS Code	Monitor Type		Col	Freq	Scale	State- Obj	Unit- Code	Unit	Method Code	L Method	Monitor- Objective
Sulfur Dioxide	42401	Industrial	1		1	MID	COM	800	ppb	060	Pulsed Fluorescent	Source Oriented
Sulfur Dioxide Max 5-mi Avg	in 42406	Industrial	1		1	MID	СОМ	008	ppb	060	Pulsed Fluorescent	Source Oriented

Page 2 of 49 Tuesday, May 21, 2013

Doe Run Buick

AQS Site Number **29-093-9008**

347 Power Lane (Address, Elevation, Lati, and Longi to be confirmed)

138

0000

Latitude:

37.65214

AQCR:

SE Missouri

Longitude:

-91.11689

MSA:

Not in a MSA

Elevation (ft): 1423

Pollutant	AQS Code	Monitor Type		Col	Freq	Scale	State- Obj	Unit- Code	Unit	Method- Code	Method	Monitor- Objective
Ambient Temperature	68105	Industrial	1		1/6	N/A	COM	017	deg C	780	Instrumental	Other
Lead (TSP) - LC FRM/FEM	14129	Industrial	1		1/6	MID	СОМ	105	ug/m^3-LC	113	Doe Run Mass Spectra ICAP	Source Oriented
Sample Baro Pressure	68108	Industrial	1		1/6	N/A	COM	059	mm (Hg)	780	Instrumental	Other

AQS Site Number 29-093-0021

Doe Run Buick - North#5, Buick, MO 65439

Latitude:

37.65178

AQCR: 138

SE Missouri

Longitude:

-91.13094

MSA:

0000 Not in a MSA

Elevation (ft):

Pollutant	AQS Code	Monitor		Col	Fron	Scale	State- Obi	Unit- Code		Method- Code	Method	Monitor- Objective
1 VIIIIIIII	AQB Conc	Туре	100		1109	Dente	Ouj	Coue		Coue		Objective
Ambient Temperature	68105	Industrial	1		1/6	N/A	COM	017	deg C	780	Instrumental	Other
Lead (TSP) - LC FRM/FEM	14129	Industrial	1		1/6	MID	СОМ	105	ug/m^3-LC	: 113	Doe Run Mass Spectra ICAP	Source Oriented
Sample Baro Pressure	68108	Industrial	1		1/6	N/A	СОМ	059	mm (Hg)	780	Instrumental	Other

Tuesday, May 21, 2013 Page 3 of 49

Doe Run Buick - South#1, Buick, MO 65439

Latitude: 37.62400 AQCR: 138 SE Missouri

Longitude: -91.12827 *MSA*: 0000 Not in a MSA

Elevation (ft):

Pollutant	AQS Code	Monitor Type		Col	Freq	Scale	State- Obj	Unit- Code	Unit	Method- Code	Method	Monitor- Objective
Ambient Temperature	68105	Industrial	1	✓	1/6	N/A	SIP	017	deg C	780	Instrumental	Other
Lead (TSP) - LC FRM/FEM	14129	Industrial	1	✓	1/6	MID	SIP	105	ug/m^3-LC	: 113	Doe Run Mass Spectra ICAP	Source Oriented
Sample Baro Pressure	68108	Industrial	1	v	1/6	N/A	SIP	059	mm (Hg)	780	Instrumental	Other

Tuesday, May 21, 2013 Page 4 of 49

Doe Run Glover

AQS Site Number 29-093-0029

Doe Run Glover - Big Creek #5, Glover, MO 65439

Latitude:

37.471667

138 AQCR:

0000

SE Missouri

Longitude:

-90.689444

MSA:

Not in a MSA

Elevation (ft):

Pollutant	AQS Code	Monitor Type		Col	Freq	Scale	State- Obj	Unit- Code	Unit	Method Code	Method	Monitor- Objective
Ambient Temperature	68105	Industrial	1		1/6	N/A	COM	017	deg C	780	Instrumental	Other
Lead (TSP) - LC FRM/FEM	14129	Industrial	1		1/6	MID	СОМ	105	ug/m^3-LC	: 110	Pima Co., AZ Mass Spectra ICAP	Source Oriented
Sample Baro Pressure	68108	Industrial	1		1/6	N/A	COM	059	mm (Hg)	780	Instrumental	Other

AQS Site Number 29-093-0027

Doe Run Glover - Post Office #2, Glover, MO 65439

Latitude:

37.486111

AQCR:

138 SE Missouri

0000

Longitude: -90.69

MSA:

Not in a MSA

Elevation (ft): 927

Monitor-Method-Monitor-State-Unit-AQS Code Type Pollutant POC Col Freq Scale Code Unit Code Method **Objective** Obj **~** Ambient Temperature 68105 1/6 N/A COM 780 Instrumental Other Industrial 017 deg C **✓** Lead (TSP) - LC 14129 Industrial 1/6 MID COM 105 Pima Co., AZ ug/m^3-LC 110 Source FRM/FEM Mass Spectra Oriented ICAP **V** Sample Baro Pressure 68108 Industrial 1/6 N/A COM 059 780 Instrumental Other mm (Hg)

Tuesday, May 21, 2013 Page 5 of 49

Doe Run Herculaneum

AQS Site Number 29-099-9005

847 Broad St., Herculaneum, MO, 63048

Latitude: 38.261667

AQCR: 070

Metropolitan St. Louis

Longitude:

-90.379722

MSA: 7040

St. Louis, MO-IL

Elevation (ft): 500

Pollutant	AQS Code	Monitor Type		Col	Freq	Scale	State- Obj	Unit- Code	Unit	Method Code		Monitor- Objective
Ambient Temperature	68105	Industrial	1		1/6	N/A	SIP	017	deg C	780	Instrumental	Other
Lead (TSP) - LC FRM/FEM	14129	Industrial	1		1/6	MID	SIP	105	ug/m^3-LC	189	Inter-Mountain Lab, Inc Mass Spectra ICAP	Source Oriented
Sample Baro Pressure	68108	Industrial	1		1/6	N/A	SIP	059	mm (Hg)	780	Instrumental	Other

AQS Site Number 29-099-0024

951 Church St., Herculaneum, MO 63048

Latitude:

38.258667

AQCR: 070

070

Metropolitan St. Louis

Longitude:

-90.380889

MSA:

7040 St. Louis, MO-IL

Elevation (ft): 463

Pollutant	AQS Code	Monitor Type		Col	Freq	Scale	State- Obj	Unit- Code	Unit	Method Code	- Method	Monitor- Objective
Ambient Temperature	68105	Industrial	1	~	1/3	N/A	COM	017	deg C	780	Instrumental	Other
Lead (TSP) - LC FRM/FEM	14129	Industrial	1	✓	1/3	NBR	СОМ	105	ug/m^3-LC	189	Inter-Mountain Lab, Inc Mass Spectra ICAP	Source Oriented
Sample Baro Pressure	68108	Industrial	1	✓	1/3	N/A	СОМ	059	mm (Hg)	780	Instrumental	Other

Tuesday, May 21, 2013 Page 6 of 49

Mott Street, Herculaneum, MO, 63048

Latitude:

38.263394

AQCR: 070

7040

Metropolitan St. Louis

Longitude:

-90.379667

MSA:

St. Louis, MO-IL

Elevation (ft): 468

Pollutant	AQS Code	Monitor Type		Col	Freq	Scale	State- Obj	Unit- Code	Unit	Method- Code	Method	Monitor- Objective
Ambient Temperature	68105	Industrial	1	✓	1/1	N/A	COM	017	deg C	780	Instrumental	Other
Lead (TSP) - LC FRM/FEM	14129	Industrial	1	✓	1/1	MID	СОМ	105	ug/m^3-LC	189	Inter-Mountain Lab, Inc Mass Spectra ICAP	Source Oriented & Highest Concentration
Sample Baro Pressure	68108	Industrial	1	~	1/1	N/A	СОМ	059	mm (Hg)	780	Instrumental	Other

AQS Site Number 29-099-9002

1 Black Cat Dr., Herculaneum, MO, 63048

Latitude:

38.267222

AQCR: 070

Metropolitan St. Louis

Longitude:

-90.37833

MSA:

7040 St. Louis, MO-IL

Elevation (ft): 445

Pollutant	AQS Code	Monitor Type		Col	Freq	Scale	State- Obj	Unit- Code	Unit	Method- Code	Method	Monitor- Objective
Ambient Temperature	68105	Industrial	1		1/3	N/A	СОМ	017	deg C	780	Instrumental	Other
Lead (TSP) - LC FRM/FEM	14129	Industrial	1		1/3	NBR	COM	105	ug/m^3-LC	189	Inter-Mountain Lab, Inc Mass Spectra ICAP	Source Oriented & Population Exposure
Sample Baro Pressure	68108	Industrial	1		1/3	N/A	СОМ	059	mm (Hg)	780	Instrumental	Other

Tuesday, May 21, 2013 Page 7 of 49 North Cross, Herculaneum, MO 63048

Latitude:

38.263378

AQCR: 070

7040

Metropolitan St. Louis

Longitude:

-90.381122

MSA:

St. Louis, MO-IL

Elevation (ft): 463

Pollutant	AQS Code	Monitor Type		Col	Freq	Scale	State- Obj	Unit- Code	Unit	Method- Code	Method	Monitor- Objective
Ambient Temperature	68105	Industrial	1		1/1	N/A	COM	017	deg C	780	Instrumental	Other
Lead (TSP) - LC FRM/FEM	14129	Industrial	1		1/1	NBR	СОМ	105	ug/m^3-LC	C 189	Inter-Mountain Lab, Inc Mass Spectra ICAP	Source Oriented & Population Exposure
Sample Baro Pressure	68108	Industrial	1		1/1	N/A	COM	059	mm (Hg)	780	Instrumental	Other

AQS Site Number **29-099-9004**

460 Sherman St., Herculaneum, MO, 63048

Latitude:

38.2717

AQCR: 070

070 Metropolitan St. Louis

Longitude:

-90.376520

MSA:

7040 St. Louis, MO-IL

Elevation (ft): 462

Pollutant	AQS Code	Monitor Type		Col	Freq	Scale	State- Obj	Unit- Code	Unit	Method- Code	Method	Monitor- Objective
Ambient Temperature	68105	SPM	1		1/6	N/A	COM	017	deg C	780	Instrumental	Other
Lead (TSP) - LC FRM/FEM	14129	Industrial	1		1/6	NBR	СОМ	105	ug/m^3-LC	189	Inter-Mountain Lab, Inc Mass Spectra ICAP	Source Oriented
Sample Baro Pressure	68108	SPM	1		1/6	N/A	COM	059	mm (Hg)	780	Instrumental	Other

Tuesday, May 21, 2013 Page 8 of 49

210 Glennon Heights Rd., Crystal City, MO 63019

Latitude:

38.243

AQCR: 070

7040

Metropolitan St. Louis

Longitude:

-90.37372

MSA:

St. Louis, MO-IL

Elevation (ft): 578

Pollutant	AQS Code	Monitor Type		Col	Freq	Scale	State- Obj	Unit- Code	Unit	Method- Code	Method	Monitor- Objective
Ambient Temperature	68105	Industrial	1		1/6	N/A	COM	017	deg C	780	Instrumental	Other
Lead (TSP) - LC FRM/FEM	14129	Industrial	1		1/6	NBR	СОМ	105	ug/m^3-LC	189	Inter-Mountain Lab, Inc Mass Spectra ICAP	Source Oriented & Upwind Background
Sample Baro Pressure	68108	Industrial	1		1/6	N/A	COM	059	mm (Hg)	780	Instrumental	Other

Tuesday, May 21, 2013 Page 9 of 49

Environmental Services Program (ESP)

AQS Site Number **29-097-0004**

20400 Millwood Rd., Alba, MO 64755

Latitude: 37.2385

AQCR: 139

SW Missouri

Longitude:

-94.42468

MSA:

3710

Joplin, MO

Elevation (ft):

Pollutant	AQS Code	Monitor Type		Col	Freq	Scale	State- Obj	Unit- Code	Unit	Method Code	l- Method	Monitor- Objective
Indoor Temperature	62107	SPM	1		1	N/A	MET	017	deg C	013	Electronic Averaging	Other
Ozone	44201	SLAMS	1	✓	1	NBR	СОМ	007	ppm	047	Ultraviolet Photometric	Max Ozone Concentration & Population Exposure

AQS Site Number 29-099-0019

1709 Lonedell Dr., Arnold, MO 63010

Latitude:

38.448581

AQCR: 070

Metropolitan St. Louis

Longitude:

-90.398436

MSA:

7040

St. Louis, MO-IL

Elevation (ft): 636

Pollutant	AQS Code	Monitor Type		Col	Freq	Scale	State- Obj	Unit- Code	Unit	Method- Code	Method	Monitor- Objective
Acceptable PM2.5 AQI/SPEC	88502	SPEC	6		1/3	NBR	RES	105	ug/m^3-LC	810	METONE SASS	Population Exposure
Acceptable PMCoarse LC	- 86502	SPM	1		1	NBR	COM	105	ug/m^3-LC	790	FDMS- Gravimetric 1405-DF	Population Exposure
Baro Pressure	64101	SPM	1		1	N/A	MET	059	mm (Hg)	014	Instrumental	Other
Indoor Temperature	62107	SPM	1		1	N/A	MET	017	deg C	013	Electronic Averaging	Other

Page 10 of 49 Tuesday, May 21, 2013

Outdoor Temperature	62101	SPM	1		1	N/A	MET	017	deg C	040	Electronic Averaging	Other
Ozone	44201	SLAMS	1	✓	1	NBR	COM	007	ppm	047	Ultraviolet Photometric	Population Exposure
PM10 - LC	85101	SPM	5		1	NBR	COM	105	ug/m^3-LC	790	FDMS- Gravimetric 1405-DF	Population Exposure
PM2.5 - LC	88101	SLAMS	4		1	NBR	СОМ	105	ug/m^3-LC	182	FMDS- Gravimetric 1405-DF	Population Exposure
PM2.5 Tot Atmospheric	88500	SPM	1		1	NBR	AQI	105	ug/m^3-LC	790	FDMS- Gravimetric 1405-DF	Population Exposure
PM2.5 Volatile Channel	88503	SPM	1		1	NBR	AQI	105	ug/m^3-LC	790	FDMS- Gravimetric 1405-DF	Population Exposure
Relative Humidity	62201	SPM	1		1	N/A	MET	019	%humidity	020	Instrumental	Other
Wind Direction - Resultant	61104	SPM	1		1	N/A	MET	014	deg	067	Instrumental: RM Young Mod 05103	Other
Wind Speed - Resultant	61103	SPM	1		1	N/A	MET	012	mph	067	Instrumental: RM Young Mod 05103	Other

AQS Site Number **29-179-0001**

0.75 mile S. of 3229 County Rd., Boss, MO 65440

Latitude:

37.53467

AQCR: 138

SE Missouri

Longitude:

-91.14857

MSA:

0000 Not in a MSA

Elevation (ft): 996

		Monito	or-				State-	Unit-		Method	1-	Monitor-
Pollutant	AQS Code	Type	POC	Col	Freq	Scale	Obj	Code	Unit	Code	Method	Objective
Ambient Temperature	68105	SPM	1		1/6	N/A	COM	017	deg C	803	Off-Site Avg Temperature	Other

Page 11 of 49 Tuesday, May 21, 2013

Lead (TSP) - LC FRM/FEM	14129	SLAMS	1	1/6	NBR	COM	105	ug/m^3-LC	192	Inductive Coupled Plasma Spectrometry	Source Oriented
Sample Baro Pressure	68108	SPM	1	1/6	N/A	COM	059	mm (Hg)	803	Off-Site Avg Pressure	Other

AQS Site Number **29-510-0085**

3247 Blair Street, St. Louis, MO 63107

Latitude: 38.656449

56449 *AQCR*: 070

Metropolitan St. Louis

Longitude: -90.198548

MSA:

7040 St. Louis, MO-IL

Elevation (ft): 450

		Monitor					State-	Unit-		Method-		Monitor-
Pollutant A	QS Code	Type	POC	Col	Freq	Scale	Obj	Code	Unit	Code	Method	Objective
Acceptable PM2.5 AQI/SPEC	88502	NCORE	6		1/3	NBR	RES	105	ug/m^3-LC	810	METONE SASS	Population Exposure
Acceptable PMCoarse - LC	86502	SLAMS	1		1	NBR	COM	105	ug/m^3-LC	790	FDMS- Gravimetric 1405-DF	Population Exposure
Ambient Temperature	68105	SLAMS	7		1/6	N/A	COM	017	deg C	780	Instrumental	Other
Ambient Temperature	68105	SLAMS	3	~	1/3	N/A	СОМ	017	deg C	127	Lo-Vol R&P 2025 Sequential	Other
Ambient Temperature	68105	SLAMS	1	✓	1/1	N/A	СОМ	017	deg C	118	Lo-Vol R&P 2025 Sequential	Other
Baro Pressure	64101	SLAMS	1		1	N/A	MET	059	mm (Hg)	014	Instrumental	Other
Black Carbon PM2.5 STF	84313	SLAMS	1		1	NBR	RES	001	ug/m^3	866	Magee Scientific AE21ER	Population Exposure
Carbon Monoxide	42101	NCORE	1		1	NBR	СОМ	007	ppm	055	Gas Filter Corr Thermo Electron	Population Exposure

Tuesday, May 21, 2013 Page 12 of 49

Indoor Temperature	62107	SLAMS	1		1	N/A	MET	017	deg C	013	Electronic Averaging	Other
Lead (TSP) - LC FRM/FEM	14129	NCORE	1		1/6	NBR	COM	105	ug/m^3-LC	192	Inductive Coupled Plasma Spectrometry	Population Exposure
Nitric Oxide	42601	NCORE	1		1	NBR	COM	008	ppb	591	Chemiluminesce nce	Population Exposure
Outdoor Temperature	62101	NCORE	1		1	N/A	MET	017	deg C	040	Electronic Averaging	Other
Ozone	44201	NCORE	1	✓	1	NBR	COM	007	ppm	047	Ultraviolet Photometric	Population Exposure
PM10 - LC	85101	SLAMS	5		1	NBR	СОМ	105	ug/m^3-LC	790	FDMS- Gravimetric 1405-DF	Population Exposure
PM10 - LC	85101	SLAMS	1	✓	1/3	NBR	COM	105	ug/m^3-LC	127	Lo-Vol R&P 2025 Sequential	Population Exposure
PM10 - Total STP	81102	SLAMS	1	✓	1/3	NBR	COM	001	ug/m^3	127	Lo-Vol R&P 2025 Sequential	Population Exposure
PM2.5 - LC	88101	SLAMS	4		1	NBR	COM	105	ug/m^3-LC	182	FMDS- Gravimetric 1405-DF	Population Exposure
PM2.5 - LC	88101	NCORE	1	✓	1/1	NBR	COM	105	ug/m^3-LC	145	R&P 2025 Sequential w/VSCC	Population Exposure
PM2.5 Tot Atmospheric	88500	SLAMS	1		1	NBR	AQI	105	ug/m^3-LC	790	FDMS- Gravimetric 1405-DF	Population Exposure
PM2.5 Volatile Channel	88503	SLAMS	1		1	NBR	AQI	105	ug/m^3-LC	790	FDMS- Gravimetric 1405-DF	Population Exposure
PMCoarse - LC (FRM Diff)	86101	SLAMS	1	✓	1/3	NBR	сом	105	ug/m^3-LC	176	Thermo 2025 Sequential PM10-PM2.5	Population Exposure

Tuesday, May 21, 2013 Page 13 of 49

Reactive Oxides of N (NOY)	42600	NCORE	1		1	NBR	СОМ	800	ppb	591	Chemiluminesce nce	Population Exposure
Relative Humidity	62201	NCORE	1		1	N/A	MET	019	%humidity	020	Instrumental	Other
Sample Baro Pressure	68108	SLAMS	1	✓	1/1	N/A	COM	059	mm (Hg)	118	Lo-Vol R&P 2025 Sequential	Other
Sample Baro Pressure	68108	SLAMS	3	V	1/3	N/A	СОМ	059	mm (Hg)	127	Lo-Vol R&P 2025 Sequential	Other
Sample Baro Pressure	68108	SLAMS	7		1/6	N/A	COM	059	mm (Hg)	780	Instrumental	Other
Solar Radiation	63301	SLAMS	1		1	N/A	MET	079	W/m^2	011	Instrumental	Other
Sulfur Dioxide	42401	NCORE	1		1	NBR	COM	008	ppb	600	Ultraviolet Fluorenscence API 100 EU	Population Exposure
Sulfur Dioxide Max 5-min Avg	42406	NCORE	1		1	NBR	COM	008	ppb	600	Ultraviolet Fluorenscence API 100 EU	Population Exposure
Wind Direction - Resultant	61104	NCORE	1		1	N/A	MET	014	deg	065	Instrumental: RM Young Mod 05305	Other
Wind Speed - Resultant	61103	NCORE	1		1	N/A	MET	012	mph	065	Instrumental: RM Young Mod 05305	Other

AQS Site Number **29-095-0042**

Site information to be updated once confirmed

Latitude: 39.047911

AQCR:

094

Metropolitan Kansas City

Longitude:

-94.450513

3760 MSA:

Kansas City, MO-KS

Elevation (ft):

Monitor-Pollutant AQS Code Type

POC Col Freq Scale

State- Unit-

Obj

Code

Method-Unit

Code

Method

Monitor-Objective

Tuesday, May 21, 2013

Page 14 of 49

Acceptable PMCoarse - LC	86502	SPM	1	1	MIC	СОМ	105	ug/m^3-LC	790	FDMS- Gravimetric 1405-DF	Source Oriented
Baro Pressure	64101	SPM	1	1	N/A	MET	059	mm (Hg)	014	Instrumental	Other
Black Carbon PM2.5 STP	84313	SPM	1	1	MIC	COM	001	ug/m^3	866	Magee Scientific AE21ER	Source Oriented
Carbon Monoxide	42101	SLAMS	1	1	MIC	COM	007	ppm	054	Non-dispersive Infrared	Source Oriented
Indoor Temperature	62107	SPM	1	1	N/A	MET	017	deg C	013	Electronic Averaging	Other
Nitric Oxide	42601	SPM	1	1	NBR	COM	008	ppb	074	Chemiluminesce nce	Source Oriented
Nitrogen Dioxide	42602	SLAMS	1	1	MIC	COM	008	ppb	074	Chemiluminesce nce	Source Oriented
Outdoor Temperature	62101	SPM	1	1	N/A	MET	017	deg C	040	Electronic Averaging	Other
Oxides of Nitrogen	42603	SPM	1	1	NBR	COM	800	ppb	074	Chemiluminesce nce	Source Oriented
PM10 - LC	85101	SPM	5	1	MIC	COM	105	ug/m^3-LC	790	FDMS- Gravimetric 1405-DF	Source Oriented
PM2.5 - LC	88101	SLAMS	4	1	MIC	СОМ	105	ug/m^3-LC	182	FMDS- Gravimetric 1405-DF	Source Oriented
PM2.5 Tot Atmospheric	88500	SPM	1	1	MIC	AQI	105	ug/m^3-LC	790	FDMS- Gravimetric 1405-DF	Source Oriented

Tuesday, May 21, 2013 Page 15 of 49

PM2.5 Volatile Channel	88503	SPM	1	1	MIC	AQI	105	ug/m^3-LC	790	FDMS- Gravimetric 1405-DF	Source Oriented
Precipitation	65102	SPM	1	1	N/A	MET	021	inches	011	Bucket	Other
Relative Humidity	62201	SPM	1	1	N/A	MET	019	%humidity	020	Instrumental	Other
Solar Radiation	63301	SPM	1	1	N/A	MET	079	W/m^2	011	Instrumental	Other
Wind Direction - Resultant	61104	SPM	1	1	N/A	MET	014	deg	067	Instrumental: RM Young Mod 05103	Other
Wind Speed - Resultant	61103	SPM	1	1	N/A	MET	012	mph	067	Instrumental: RM Young Mod 05103	Other

Romme Wasse AQS Site Number 29-186-0005

15797 Highway D, Bonne Terre, MO 63628

Latitude: 37.90084

AQCR:

138 SE Missouri

Longitude: -90.42388

MSA:

0000 Not in a MSA

Elevation (ft): 840

Pollutant	AQS Code	Monitor Type		Col	Freq	Scale	State- Obj	Unit- Code		Method- Code	Method	Monitor- Objective
Acceptable PM2.5 AQI/SPEC	88502	SPEC	5		1/6	REG	RES	105	ug/m^3-LC	810	METONE SASS	Upwind background
Indoor Temperature	62107	SPM	1		1	N/A	MET	017	deg C	013	Electronic Averaging	Other
Ozone	44201	SLAMS	1	✓	1	REG	СОМ	007	ppm	047	Ultraviolet Photometric	Regional Transport
Solar Radiation	63301	SPM	1		1	N/A	MET	079	W/m^2	011	Instrumental	Other

Tuesday, May 21, 2013 Page 16 of 49

Wind Direction - Resultant	61104	SPM	1	1	N/A	MET	014	deg	Instrumental: RM Young Mod 05103	Other
Wind Speed - Resultant	61103	SPM	1	1	N/A	MET	012	mph	Instrumental: RM Young Mod 05103	Other

AQS Site Number **29-510-0093**

100 Branch St., St. Louis, MO 63102

Latitude:

38.65643

AQCR: 070

Metropolitan St. Louis

Longitude:

-90.18977

MSA:

7040

St. Louis, MO-IL

Elevation (ft): 422

Pollutant	AQS Code	Monitor- Type		Col	Freq	Scale	State- Obj	Unit- Code	Unit	Method Code	- Method	Monitor- Objective
Acceptable PMCoarse LC	- 86502	SPM	1		1	MID	COM	105	ug/m^3-L0	C 790	FDMS- Gravimetric 1405-DF	Source Oriented
Baro Pressure	64101	SPM	1		1	N/A	MET	059	mm (Hg)	014	Instrumental	Other
Indoor Temperature	62107	SPM	1		1	N/A	MET	017	deg C	013	Electronic Averaging	Other
Outdoor Temperature	62101	SPM	1		1	N/A	MET	017	deg C	040	Electronic Averaging	Other
PM10 - LC	85101	SPM	5		1	MID	СОМ	105	ug/m^3-L0	℃ 790	FDMS- Gravimetric 1405-DF	Source Oriented
PM10 - Total STP	81102	SLAMS	3		1	MID	COM	001	ug/m^3	079	R&P SA246B TEOM	Source Oriented
PM2.5 - LC	88101	SLAMS	4		1	MID	COM	105	ug/m^3-L0	C 182	FMDS- Gravimetric 1405-DF	Source Oriented
PM2.5 Tot Atmospherio	88500	SPM	1		1	MID	AQI	105	ug/m^3-L0	C 790	FDMS- Gravimetric 1405-DF	Source Oriented

Tuesday, May 21, 2013 Page 17 of 49

PM2.5 Volatile Channel	88503	SPM	1	1	MID	AQI	105	ug/m^3-LC	790	FDMS- Gravimetric 1405-DF	Source Oriented
Relative Humidity	62201	SPM	1	1	N/A	MET	019	%humidity	020	Instrumental	Other
Wind Direction - Resultant	61104	SPM	1	1	N/A	MET	014	deg	065	Instrumental: RM Young Mod 05305	Other
Wind Speed - Resultant	61103	SPM	1	1	N/A	MET	012	mph	065	Instrumental: RM Young Mod 05305	Other

AQS Site Number 29-213-0004

251 SW. Outer Rd., Branson, MO 65616

Latitude: 36.70765

AQCR: 139

SW Missouri

Longitude:

-93.22181 *MSA*:

SA: 0000

Not in a MSA

Elevation (ft): 1052

Pollutant	AQS Code	Monitor Type		Col	Freq	Scale	State- Obj	Unit- Code	Unit	Method- Code	Method	Monitor- Objective
Indoor Temperature	62107	SPM	1		1	N/A	MET	017	deg C	013	Electronic Averaging	Other
Ozone	44201	SPM	1	✓	1	NBR	СОМ	007	ppm	047	Ultraviolet Photometric	Max Ozone Concentration & Population Exposure
Wind Direction - Resulta	nt 61104	SPM	1		1	N/A	MET	014	deg	067	Instrumental: RM Young Mod 05103	Other
Wind Speed - Resultant	61103	SPM	1		1	N/A	MET	012	mph	067	Instrumental: RM Young Mod 05103	Other

Tuesday, May 21, 2013 Page 18 of 49

346 Power Lane, Bixby West, MO 65439

Latitude: 37.65212 *AQCR*.

AQCR: 138 SE Missouri

Longitude: -91.11653 *MSA:* 0000 Not in a MSA

Elevation (ft): 1458

Pollutant	AQS Code	Monitor Type		Col	Freq	Scale	State- Obj	Unit- Code	Unit	Method- Code	Method	Monitor- Objective
Ambient Temperature	68105	SPM	1	✓	1/1	N/A	COM	017	deg C	780	Instrumental	Other
Indoor Temperature	62107	SPM	1		1	N/A	MET	017	deg C	013	Electronic Averaging	Other
Lead (TSP) - LC FRM/FEM	14129	SLAMS	1	✓	1/6	MID	COM	105	ug/m^3-LC	192	Inductive Coupled Plasma Spectrometry	Source Oriented & Highest Concentration
Sample Baro Pressure	68108	SPM	1	✓	1/1	N/A	COM	059	mm (Hg)	780	Instrumental	Other
Sulfur Dioxide	42401	SPM	1		1	MID	СОМ	008	ppb	060	Pulsed Fluorescent	Source Oriented
Sulfur Dioxide Max 5-mi Avg	in 42406	SPM	1		1	MID	COM	008	ppb	060	Pulsed Fluorescent	Source Oriented
Wind Direction - Resulta	ant 61104	SPM	1		1	N/A	MET	014	deg	067	Instrumental: RM Young Mod 05103	Other
Wind Speed - Resultant	61103	SPM	1		1	N/A	MET	012	mph	067	Instrumental: RM Young Mod 05103	Other

Tuesday, May 21, 2013 Page 19 of 49

530 Juniper, Carthage, MO 64836

Latitude:

37.19822

AQCR:

139

3710

SW Missouri

Longitude:

-94.31702

MSA:

Joplin, MO

Elevation (ft): 986

Pollutant A	IQS Code	Monitor Type		Col	Freq	Scale	State- Obj	Unit- Code	Unit	Method- Code	Method	Monitor- Objective
Indoor Temperature	62107	SPM	1		1	N/A	MET	017	deg C	013	Electronic Averaging	Other
PM10 - Total STP	81102	SLAMS	3		1	MID	COM	001	ug/m^3	079	R&P SA246B TEOM	Source Oriented
Wind Direction - Resultar	nt 61104	SPM	1		1	N/A	MET	014	deg	067	Instrumental: RM Young Mod 05103	Other
Wind Speed - Resultant	61103	SPM	1		1	N/A	MET	012	mph	067	Instrumental: RM Young Mod 05103	Other

AQS Site Number 29-039-0001

Highway 97 & Barnes Road, El Dorado Springs, MO 64744

Latitude:

37.70097

AQCR:

139

SW Missouri

Longitude:

-94.03474

MSA:

0000 Not in a MSA

Elevation (ft): 965

Monitor-State-Unit-Method-Monitor-Pollutant AQS Code Type POC Col Freq Scale Obj CodeUnit Code Method **Objective** Acceptable PMCoarse -86502 SPM REG COM 105 ug/m^3-LC 790 FDMS-Regional Gravimetric Transport 1405-DF Baro Pressure 64101 SPM 1 N/A MET 059 mm (Hg) 014 Instrumental Other Indoor Temperature 62107 SPM N/A MET 017 deg C 013 Electronic Other Averaging

Tuesday, May 21, 2013 Page 20 of 49

Outdoor Temperature	62101	SPM	1	1	N/A	MET	017	deg C	040	Electronic Averaging	Other
Ozone	44201	SLAMS	1	1	REG	COM	007	ppm	047	Ultraviolet Photometric	Regional Transport
PM10 - LC	85101	SPM	5	1	REG	СОМ	105	ug/m^3-LC	790	FDMS- Gravimetric 1405-DF	Regional Transport
PM2.5 - LC	88101	SLAMS	4	1	REG	COM	105	ug/m^3-LC	182	FMDS- Gravimetric 1405-DF	Regional Transport
PM2.5 Tot Atmospheric	88500	SPM	1	1	REG	AQI	105	ug/m^3-LC	790	FDMS- Gravimetric 1405-DF	Regional Transport
PM2.5 Volatile Channel	88503	SPM	1	1	REG	AQI	105	ug/m^3-LC	790	FDMS- Gravimetric 1405-DF	Regional Transport
Relative Humidity	62201	SPM	1	1	N/A	MET	019	%humidity	020	Instrumental	Other
Wind Direction - Resultant	61104	SPM	1	1	N/A	MET	014	deg	067	Instrumental: RM Young Mod 05103	Other
Wind Speed - Resultant	61103	SPM	1	1	N/A	MET	012	mph	067	Instrumental: RM Young Mod 05103	Other

AQS Site Number **29-157-0001**

County Rd. 342, Farrar, MO 63746

Latitude: 37.70264

AQCR:

SE Missouri

Longitude:

-89.698640

MSA:

0000 Not in a MSA

Elevation (ft): 497

Pollutant	AQS Code	Monito Type	-	Col	Freq	Scale		Unit- Code	Unit	Method Code	d- Method	Monitor- Objective
Indoor Temperature	62107	SPM	1		1	N/A	MET	017	deg C	013	Electronic Averaging	Other

Tuesday, May 21, 2013 Page 21 of 49

Ozone	44201	SLAMS	1	✓	1	NBR	COM	007	ppm	047	Ultraviolet Photometric	Max Ozone Concentration & Extreme Downwind
Wind Direction - Resultan	t 61104	SPM	1		1	N/A	MET	014	deg	067	Instrumental: RM Young Mod 05103	Other
Wind Speed - Resultant	61103	SPM	1		1	N/A	MET	012	mph	067	Instrumental: RM Young Mod 05103	Other

AQS Site Number 29-077-0042

4208 E. Farm Rd. 66, Springfield, MO 65803

Latitude:

37.319444

AQCR:

SW Missouri

Longitude:

-93.204444

MSA:

7920 Springfield, MO

Elevation (ft): 1346

Pollutant	AQS Code	Monitor Type		Col	Freq	Scale	State- Obj	Unit- Code	Unit	Method- Code	Method	Monitor- Objective
Indoor Temperature	62107	SPM	1		1	N/A	MET	017	deg C	013	Electronic Averaging	Other
Ozone	44201	SLAMS	1	✓	1	URB	СОМ	007	ppm	047	Ultraviolet Photometric	Max Ozone Concentration & Population Exposure
Wind Direction - Resulta	nt 61104	SPM	1		1	N/A	MET	014	deg	067	Instrumental: RM Young Mod 05103	Other
Wind Speed - Resultant	61103	SPM	1		1	N/A	MET	012	mph	067	Instrumental: RM Young Mod 05103	Other

AQS Site Number 29-019-0011

1505 E. Peabody Road, Columbia, MO 65202

Latitude:

39.07803

AQCR:

137

Northern Missouri

Longitude:

Pollutant

-92.31632

MSA:

1740 Columbia, MO

Elevation (ft): 726

Monitor-

AQS Code Type

POC Col Freq Scale

State- Unit-Code

Unit

Obj

Method-Code

Method

Monitor-**Objective**

Page 22 of 49 Tuesday, May 21, 2013

Indoor Temperature	62107	SPM	1		1	N/A	MET	017	deg C	013	Electronic Averaging	Other
Ozone	44201	SLAMS	1	✓	1	NBR	COM	007	ppm	047	Ultraviolet Photometric	Max Ozone Concentration & Population Exposure

AQS Site Number 29-179-0002

Forest Rd. 2236, Westfork, MO 64498

Latitude: 37.46889

AQCR: 138

138 SE Missouri

0000

Longitude: -91.08847

MSA:

Not in a MSA

Elevation (ft): 1256

Pollutant	AQS Code	Monitoi Type		Col	Freq	Scale	State- Obj	Unit- Code		Method- Code	Method	Monitor- Objective
Ambient Temperature	68105	SPM	1		1/6	N/A	COM	017	deg C	803	Off-Site Avg Temperature	Other
Lead (TSP) - LC FRM/FEM	14129	SLAMS	1		1/6	NBR	СОМ	105	ug/m^3-LC	192	Inductive Coupled Plasma Spectrometry	Source Oriented
Sample Baro Pressure	68108	SPM	1		1/6	N/A	COM	059	mm (Hg)	803	Off-Site Avg Pressure	Other

AQS Site Number 29-113-0003

#7 Wild Horse, Foley, MO 63347

Latitude:

39.0447

AQCR:

137 Northern Missouri

Longitude:

-90.8647

MSA:

7040

St. Louis, MO-IL

Elevation (ft): 715

Pollutant	AQS Code	Monitor Type		Col	Freq	Scale	State- Obj	Unit- Code	Unit	Method Code	L Method	Monitor- Objective
Indoor Temperature	62107	SPM	1		1	N/A	MET	017	deg C	013	Electronic Averaging	Other
Ozone	44201	SLAMS	1	✓	1	NBR	СОМ	007	ppm	047	Ultraviolet Photometric	Extreme Downwind

Tuesday, May 21, 2013 Page 23 of 49

Wind Direction - Resultant	61104	SPM	1	1	N/A	MET	014	deg	067	Instrumental: RM Young Mod 05103	Other
Wind Speed - Resultant	61103	SPM	1	1	N/A	MET	012	mph	067	Instrumental: RM Young Mod 05103	Other

AQS Site Number 29-087-0008

300 S. Washington St., Oregon MO, 64473

Latitude:

40.027222

AQCR:

Northern Missouri

Longitude: -95.235833 MSA:

0000 Not in a MSA

Elevation (ft):

Pollutant	AQS Code	Monitor Type		Col	Freq	Scale	State- Obj	Unit- Code	Unit	Method Code	- Method	Monitor- Objective
Ambient Temperature	68105	SPM	3		1/6	N/A	COM	017	deg C	803	Off-Site Avg Temperature	Other
Ambient Temperature	68105	SPM	1	✓	1/6	N/A	COM	017	deg C	811	Thermo/R&P 2025 PM10	Other
Lead PM10 LC - FRM/FEM	85129	SPM	1	✓	1/6	MID	СОМ	105	ug/m^3-LC	811	Thermo/R&P 2025 PM10	Source Oriented
Sample Baro Pressure	68108	SPM	1	✓	1/6	N/A	COM	059	mm (Hg)	811	Thermo/R&P 2025 PM10	Other
Sample Baro Pressure	68108	SPM	3		1/6	N/A	COM	059	mm (Hg)	803	Off-Site Avg Pressure	Other

AQS Site Number 29-510-0094

McKinley Dr., St. Louis, MO 63110

Latitude:

38.631057

AQCR:

Metropolitan St. Louis

Longitude:

Pollutant

-90.281144

MSA:

7040

St. Louis, MO-IL

Monitor-

State- Unit-

Method-

Monitor-

Elevation (ft):

AQS Code Type

POC Col Freq Scale

CodeObj

Unit Code Method

Objective

Tuesday, May 21, 2013

Page 24 of 49

Acceptable PMCoarse - LC	86502	SPM	1	1	MIC	COM	105	ug/m^3-LC	790	FDMS- Gravimetric 1405-DF	Source Oriented
Baro Pressure	64101	SPM	1	1	N/A	MET	059	mm (Hg)	014	Instrumental	Other
Black Carbon PM2.5 STP	84313	SPM	1	1	MIC	СОМ	001	ug/m^3	866	Magee Scientific AE21ER	Source Oriented
Carbon Monoxide	42101	SLAMS	1	1	MIC	СОМ	007	ppm	054	Non-dispersive Infrared	Source Oriented
Indoor Temperature	62107	SPM	1	1	N/A	MET	017	deg C	013	Electronic Averaging	Other
Nitric Oxide	42601	SPM	1	1	NBR	COM	008	ppb	074	Chemiluminesce nce	Source Oriented
Nitrogen Dioxide	42602	SLAMS	1	1	MIC	COM	008	ppb	074	Chemiluminesce nce	Source Oriented
Outdoor Temperature	62101	SPM	1	1	N/A	MET	017	deg C	040	Electronic Averaging	Other
Oxides of Nitrogen	42603	SPM	1	1	NBR	COM	008	ppb	074	Chemiluminesce nce	Source Oriented
PM10 - LC	85101	SPM	5	1	MIC	COM	105	ug/m^3-LC	790	FDMS- Gravimetric 1405-DF	Source Oriented
PM2.5 - LC	88101	SLAMS	4	1	MIC	COM	105	ug/m^3-LC	182	FMDS- Gravimetric 1405-DF	Source Oriented
PM2.5 Tot Atmospheric	88500	SPM	1	1	MIC	AQI	105	ug/m^3-LC	790	FDMS- Gravimetric 1405-DF	Source Oriented

Tuesday, May 21, 2013 Page 25 of 49

PM2.5 Volatile Channel	88503	SPM	1	1	MIC	AQI	105	ug/m^3-LC	790	FDMS- Gravimetric 1405-DF	Source Oriented
Precipitation	65102	SPM	1	1	N/A	MET	021	inches	011	Bucket	Other
Relative Humidity	62201	SPM	1	1	N/A	MET	019	%humidity	020	Instrumental	Other
Wind Direction - Resultant	61104	SPM	1	1	N/A	MET	014	deg	067	Instrumental: RM Young Mod 05103	Other
Wind Speed - Resultant	61103	SPM	1	1	N/A	MET	012	mph	067	Instrumental: RM Young Mod 05103	Other

AQS Site Number 29-095-0018

1331 N. Jackson, Kansas City, MO 64120

Latitude: 39

39.13198

AQCR: 094

Metropolitan Kansas City

Longitude:

-94.53128

MSA:

3760

Kansas City, MO-KS

Elevation (ft): 728

Pollutant	AQS Code	Monitor Type		Col	Freq	Scale	State- Obj	Unit- Code	Unit	Method- Code	Method	Monitor- Objective
Ambient Temperature	68105	SPM	1		1/6	N/A	COM	017	deg C	127	Lo-Vol R&P 2025 Sequential	Other
PM10 - Total STP	81102	SLAMS	3		1	NBR	COM	001	ug/m^3	079	R&P SA246B TEOM	Highest Concentration & Population Exposure
Sample Baro Pressure	68108	SPM	1		1/6	N/A	СОМ	059	mm (Hg)	127	Lo-Vol R&P 2025 Sequential	Other

Tuesday, May 21, 2013 Page 26 of 49

Highway 49, approx. 0.4m South Highways 21/49/72 Intersection, Glover, 63620

0000

Latitude:

37.48964

AQCR: 138

SE Missouri

Longitude:

-90.69247

MSA:

Not in a MSA

881 Elevation (ft):

Pollutant	AQS Code	Monitor Type		Col	Freq	Scale	State- Obj	Unit- Code	Unit	Method- Code	Method	Monitor- Objective
Ambient Temperature	68105	SPM	1		1/6	N/A	COM	017	deg C	803	Off-Site Avg Temperature	Other
Lead (TSP) - LC FRM/FEM	14129	SLAMS	1		1/6	NBR	СОМ	105	ug/m^3-LC	192	Inductive Coupled Plasma Spectrometry	Source Oriented
Sample Baro Pressure	68108	SPM	1		1/6	N/A	COM	059	mm (Hg)	803	Off-Site Avg Pressure	Other

AQS Site Number 29-099-0005

1 Black Cat Dr., Herculaneum, MO, 63048

Latitude:

38.267222

AQCR: 070

Metropolitan St. Louis

Longitude:

-90.37833

MSA:

7040

St. Louis, MO-IL

Elevation (ft): 445

Pollutant	AQS Code	Monitor Type		Col	Freq	Scale	State- Obj	Unit- Code	Unit	Method- Code	Method	Monitor- Objective
Ambient Temperature	68105	SPM	1		1/3	N/A	COM	017	deg C	780	Instrumental	Other
Lead (TSP) - LC FRM/FEM	14129	SLAMS	1		1/3	NBR	СОМ	105	ug/m^3-LC	192	Inductive Coupled Plasma Spectrometry	Source Oriented & Population Exposure
Sample Baro Pressure	68108	SPM	1		1/3	N/A	COM	059	mm (Hg)	780	Instrumental	Other

Page 27 of 49 Tuesday, May 21, 2013

Mott Street, Herculaneum, MO, 63048

Latitude: 38.263394

AQCR: 070

7040

Metropolitan St. Louis

Longitude:

-90.379667

MSA:

St. Louis, MO-IL

Elevation (ft): 468

Pollutant /	4QS Code	Monitor- Type	POC	Col	Freq	Scale	State- Obj	Unit- Code	Unit	Method- Code	Method	Monitor- Objective
Ambient Temperature	68105	SPM	1	✓	1/1	N/A	COM	017	deg C	780	Instrumental	Other
Indoor Temperature	62107	SPM	1		1	N/A	MET	017	deg C	013	Electronic Averaging	Other
Lead (TSP) - LC FRM/FEM	14129	SLAMS	1	✓	1/1	MID	COM	105	ug/m^3-L0	C 192	Inductive Coupled Plasma Spectrometry	Source Oriented & Highest Concentration
Sample Baro Pressure	68108	SPM	1	✓	1/1	N/A	СОМ	059	mm (Hg)	780	Instrumental	Other
Sulfur Dioxide	42401	SLAMS	1		1	MID	СОМ	008	ppb	060	Pulsed Fluorescent	Source Oriented & Highest Concentration
Sulfur Dioxide Max 5-mir Avg	n 42406	SPM	1		1	MID	COM	800	ppb	060	Pulsed Fluorescent	Source Oriented & Highest Concentration
Wind Direction - Resulta	nt 61104	SPM	1		1	N/A	MET	014	deg	067	Instrumental: RM Young Mod 05103	Other
Wind Speed - Resultant	61103	SPM	1		1	N/A	MET	012	mph	067	Instrumental: RM Young Mod 05103	Other

Tuesday, May 21, 2013 Page 28 of 49

460 Sherman St., Herculaneum, MO, 63048

Latitude:

38.27171

AQCR: 070

7040

Metropolitan St. Louis

Longitude:

-90.376520

MSA:

St. Louis, MO-IL

Elevation (ft): 462

Pollutant	AQS Code	Monitor Type		Col	Freq	Scale	State- Obj	Unit- Code	Unit	Method- Code	Method	Monitor- Objective
Ambient Temperature	68105	SPM	1		1/3	N/A	COM	017	deg C	780	Instrumental	Other
Lead (TSP) - LC FRM/FEM	14129	SLAMS	1		1/3	NBR	СОМ	105	ug/m^3-LC	192	Inductive Coupled Plasma Spectrometry	Source Oriented
Sample Baro Pressure	68108	SPM	1		1/3	N/A	СОМ	059	mm (Hg)	780	Instrumental	Other

AQS Site Number **29-077-0036**

3319 N. Grant, Springfield, MO 65803

Latitude:

37.256069

AQCR: 139

SW Missouri

Longitude:

-93.299692

MSA:

7920 Springfield, MO

Elevation (ft): 1321

Pollutant	AQS Code	Monitor Type		Col	Freq	Scale	State- Obj	Unit- Code	Unit	Method Code	l- Method	Monitor- Objective
Indoor Temperature	62107	SPM	1		1	N/A	MET	017	deg C	013	Electronic Averaging	Other
Ozone	44201	SLAMS	1	✓	1	URB	COM	007	ppm	047	Ultraviolet Photometric	Population Exposure

Page 29 of 49 Tuesday, May 21, 2013

transta e

73 Hunter Ave., Ladue, MO 63124

Latitude:

38.65021

AQCR: 070

7040

Metropolitan St. Louis

Longitude:

-90.35036

MSA:

St. Louis, MO-IL

Elevation (ft): 528

Pollutant A	QS Code	Monitor Type	POC	Col	Freq	Scale	State- Obj	Unit- Code		Method- Code	Method	Monitor- Objective
Acceptable PMCoarse - LC	86502	SPM	1		1	NBR	COM	105	ug/m^3-LC	790	FDMS- Gravimetric 1405-DF	Population Exposure
Baro Pressure	64101	SPM	1		1	N/A	MET	059	mm (Hg)	014	Instrumental	Other
Indoor Temperature	62107	SPM	1		1	N/A	MET	017	deg C	013	Electronic Averaging	Other
Outdoor Temperature	62101	SPM	1		1	N/A	MET	017	deg C	040	Electronic Averaging	Other
PM10 - LC	85101	SPM	5		1	NBR	СОМ	105	ug/m^3-LC	790	FDMS- Gravimetric 1405-DF	Population Exposure
PM2.5 - LC	88101	SLAMS	4		1	NBR	COM	105	ug/m^3-LC	182	FMDS- Gravimetric 1405-DF	Population Exposure
PM2.5 Tot Atmospheric	88500	SPM	1		1	NBR	AQI	105	ug/m^3-LC	790	FDMS- Gravimetric 1405-DF	Population Exposure
PM2.5 Volatile Channel	88503	SPM	1		1	NBR	AQI	105	ug/m^3-LC	790	FDMS- Gravimetric 1405-DF	Population Exposure
Relative Humidity	62201	SPM	1		1	N/A	MET	019	%humidity	020	Instrumental	Other
Wind Direction - Resultan	t 61104	SPM	1		1	N/A	MET	014	deg	067	Instrumental: RM Young Mod 05103	Other

Tuesday, May 21, 2013 Page 30 of 49

AQS Site Number 29-047-0005

Highway 33 & County Home Rd., Liberty, MO 64068

Latitude:

39.303056

AQCR:

Metropolitan Kansas City

Longitude:

-94.376389

MSA: 3760

094

Kansas City, MO-KS

Elevation (ft): 930

Elevation (jt): "	•											
Pollutant	AQS Code	Monitor Type	POC	Col	Freq	Scale	State- Obj	Unit- Code	Unit	Method- Code	Method	Monitor- Objective
Acceptable PM2.5 AQI/SPEC	88502	SPEC	5		1/3	NBR	RES	105	ug/m^3-L0	C 810	METONE SASS	Population Exposure
Acceptable PMCoarse LC	- 86502	SPM	1		1	NBR	COM	105	ug/m^3-L0	C 790	FDMS- Gravimetric 1405-DF	Population Exposure
Baro Pressure	64101	SPM	1		1	N/A	MET	059	mm (Hg)	014	Instrumental	Other
Indoor Temperature	62107	SPM	1		1	N/A	MET	017	deg C	013	Electronic Averaging	Other
Outdoor Temperature	62101	SPM	1		1	N/A	MET	017	deg C	040	Electronic Averaging	Other
Ozone	44201	SLAMS	1	✓	1	NBR	COM	007	ppm	047	Ultraviolet Photometric	Population Exposure
PM10 - LC	85101	SPM	5		1	NBR	COM	105	ug/m^3-L0	C 790	FDMS- Gravimetric 1405-DF	Population Exposure
PM2.5 - LC	88101	SLAMS	4		1	NBR	COM	105	ug/m^3-L0	C 182	FMDS- Gravimetric 1405-DF	Population Exposure
PM2.5 Tot Atmospherio	88500	SPM	1		1	NBR	AQI	105	ug/m^3-L0	C 790	FDMS- Gravimetric 1405-DF	Population Exposure

Tuesday, May 21, 2013 Page 31 of 49

PM2.5 Volatile Channel	88503	SPM	1	1	NBR	AQI	105	ug/m^3-LC	790	FDMS- Gravimetric 1405-DF	Population Exposure
Relative Humidity	62201	SPM	1	1	N/A	MET	019	%humidity	020	Instrumental	Other
Solar Radiation	63301	SPM	1	1	N/A	MET	079	W/m^2	011	Instrumental	Other
Wind Direction - Resultant	61104	SPM	1	1	N/A	MET	014	deg	067	Instrumental: RM Young Mod 05103	Other
Wind Speed - Resultant	61103	SPM	1	1	N/A	MET	012	mph	067	Instrumental: RM Young Mod 05103	Other

AQS Site Number **29-510-0086**

4520 Margaretta, St. Louis, MO 63105

Latitude: 38.673172

AQCR: 070

Metropolitan St. Louis

Longitude:

-90.239086

MSA:

7040

St. Louis, MO-IL

Elevation (ft): 514

Pollutant	AQS Code	Monitor- Type		Col	Freq	Scale	State- Obj	Unit- Code	Unit	Method- Code	Method	Monitor- Objective
Indoor Temperature	62107	SPM	1		1	N/A	MET	017	deg C	013	Electronic Averaging	Other
Nitric Oxide	42601	SPM	1		1	NBR	СОМ	008	ppb	074	Chemiluminesce nce	Population Exposure
Nitrogen Dioxide	42602	SLAMS	1		1	NBR	COM	008	ppb	074	Chemiluminesce nce	Population Exposure
Oxides of Nitrogen	42603	SPM	1		1	NBR	СОМ	008	ppb	074	Chemiluminesce nce	Population Exposure
PM10 - Total STP	81102	SLAMS	3		1	NBR	СОМ	001	ug/m^3	079	R&P SA246B TEOM	Population Exposure

Tuesday, May 21, 2013 Page 32 of 49

Sulfur Dioxide	42401	SLAMS	1	1	NBR	COM	800	ppb	060	Pulsed Fluorescent	Population Exposure
Sulfur Dioxide Max 5-min Avg	42406	SLAMS	1	1	NBR	COM	800	ppb	060	Pulsed Fluorescent	Population Exposure

AQS Site Number **29-137-0001**

20057 State Park Office Rd., Stoutville, MO 65283

Latitude:

39.47510

AQCR: 137

MSA:

7 Northern Missouri

Longitude: -91.78899

0000

Not in a MSA

Elevation (ft): 710

Pollutant	4QS Code	Monitor Type	POC	Col	Freq	Scale	State- Obj	Unit- Code	Unit	Method- Code	Method	Monitor- Objective
Indoor Temperature	62107	SPM	1		1	N/A	MET	017	deg C	013	Electronic Averaging	Other
Ozone	44201	SLAMS	1		1	REG	СОМ	007	ppm	047	Ultraviolet Photometric	General/Back ground
PM10 - Total STP	81102	SPM	3		1	REG	SIP	001	ug/m^3	079	R&P SA246B TEOM	General/Back ground
Sulfur Dioxide	42401	SPM	1		1	NBR	СОМ	008	ppb	060	Pulsed Fluorescent	General/Back ground
Sulfur Dioxide Max 5-mii Avg	า 42406	SPM	1		1	NBR	СОМ	008	ppb	060	Pulsed Fluorescent	General/Back ground
Wind Direction - Resulta	nt 61104	SPM	1		1	N/A	MET	014	deg	067	Instrumental: RM Young Mod 05103	Other
Wind Speed - Resultant	61103	SPM	1		1	N/A	MET	012	mph	067	Instrumental: RM Young Mod 05103	Other

Tuesday, May 21, 2013 Page 33 of 49

13044 Marine Ave., Maryland Heights, MO 63146

Latitude:

38.7109

AQCR: 070

7040

Metropolitan St. Louis

Longitude:

-90.4759

MSA:

St. Louis, MO-IL

Elevation (ft): 633

Pollutant 2	AQS Code	Monitor Type		Col	Freq	Scale	State- Obj	Unit- Code	Unit	Method- Code	Method	Monitor- Objective
Indoor Temperature	62107	SPM	1		1	N/A	MET	017	deg C	013	Electronic Averaging	Other
Outdoor Temperature	62101	SPM	1		1	N/A	MET	015	deg F	040	Electronic Averaging	Other
Ozone	44201	SLAMS	1	✓	1	NBR	СОМ	007	ppm	047	Ultraviolet Photometric	Population Exposure
Wind Direction - Resulta	nt 61104	SPM	1		1	N/A	MET	014	deg	065	Instrumental: RM Young Mod 05305	Other
Wind Speed - Resultant	61103	SPM	1		1	N/A	MET	012	mph	065	Instrumental: RM Young Mod 05305	Other

AQS Site Number **29-077-0032**

710 S. Holland St. at Madison St., Springfield, MO 65806

Latitude:

37.199473

AQCR:

139

7920

SW Missouri

Longitude:

-93.284681

MSA:

Springfield, MO

Elevation (ft): 1316

Pollutant	AQS Code	Monitor Type		Col	Freq	Scale	State- Obj	Unit- Code		Method Code	l- Method	Monitor- Objective
Acceptable PMCoarse LC	- 86502	SPM	1		1	NBR	COM	105	ug/m^3-LC	790	FDMS- Gravimetric 1405-DF	Population Exposure
Ambient Temperature	68105	SPM	3		1/6	N/A	СОМ	017	deg C	127	Lo-Vol R&P 2025 Sequential	Other

Tuesday, May 21, 2013 Page 34 of 49

Baro Pressure	64101	SPM	1	1	N/A	MET	059	mm (Hg)	014	Instrumental	Other
Indoor Temperature	62107	SPM	1	1	N/A	MET	017	deg C	013	Electronic Averaging	Other
Outdoor Temperature	62101	SPM	1	1	N/A	MET	017	deg C	040	Electronic Averaging	Other
PM10 - LC	85101	SPM	5	1	NBR	COM	105	ug/m^3-LC	790	FDMS- Gravimetric 1405-DF	Population Exposure
PM10 - Total STP	81102	SLAMS	3	1	NBR	СОМ	001	ug/m^3	079	R&P SA246B TEOM	Population Exposure
PM10 - Total STP	81102	SLAMS	1	1/6	NBR	COM	001	ug/m^3	127	Lo-Vol R&P 2025 Sequential	Population Exposure
PM2.5 - LC	88101	SLAMS	4	1	NBR	COM	105	ug/m^3-LC	182	FMDS- Gravimetric 1405-DF	Population Exposure
PM2.5 Tot Atmospheric	88500	SPM	1	1	NBR	AQI	105	ug/m^3-LC	790	FDMS- Gravimetric 1405-DF	Population Exposure
PM2.5 Volatile Channel	88503	SPM	1	1	NBR	AQI	105	ug/m^3-LC	790	FDMS- Gravimetric 1405-DF	Population Exposure
Relative Humidity	62201	SPM	1	1	N/A	MET	019	%humidity	020	Instrumental	Other
Sample Baro Pressure	68108	SPM	3	1/6	N/A	СОМ	059	mm (Hg)	127	Lo-Vol R&P 2025 Sequential	Other

Tuesday, May 21, 2013 Page 35 of 49

2625 Meadow Lake View, New Bloomfield, MO, 65063

Latitude:

38.70608

137 AQCR:

0000

Northern Missouri

Longitude:

-92.09308

MSA:

Not in a MSA

Elevation (ft): 860

Pollutant	AQS Code	Monitor Type		Col	Freq	Scale	State- Obj	Unit- Code	Unit	Method- Code	Method	Monitor- Objective
Indoor Temperature	62107	SPM	1		1	N/A	MET	017	deg C	013	Electronic Averaging	Other
Ozone	44201	SLAMS	1	✓	1	NBR	СОМ	007	ppm	047	Ultraviolet Photometric	Max Ozone Concentration & Population Exposure
Wind Direction - Resulta	int 61104	SPM	1		1	N/A	MET	014	deg	067	Instrumental: RM Young Mod 05103	Other
Wind Speed - Resultant	61103	SPM	1		1	N/A	MET	012	mph	067	Instrumental: RM Young Mod 05103	Other

AQS Site Number 29-189-0015

6115 Frontenac Pointe Ct., Oakville, MO 63129

Latitude:

38.45671

AQCR: 070

Metropolitan St. Louis

Longitude:

-90.327477

MSA:

7040

St. Louis, MO-IL

Elevation (ft): 477

Pollutant	AQS Code	Monitor Type		Col	Freq	Scale	State- Obj	Unit- Code	Unit	Method- Code	Method	Monitor- Objective
Indoor Temperature	62107	SPM	1		1	N/A	MET	017	deg C	013	Electronic Averaging	Other
PM10 - Total STP	81102	SLAMS	3		1	MID	СОМ	001	ug/m^3	079	R&P SA246B TEOM	Source Oriented & Population Exposure
Wind Direction - Resulta	ant 61104	SPM	1		1	N/A	MET	014	deg	067	Instrumental: RM Young Mod 05103	Other

Tuesday, May 21, 2013 Page 36 of 49 AQS Site Number 29-179-0034

13155 Highway KK, Boss, MO 65440

Latitude:

37.56485

AQCR: 138

138 SE

SE Missouri

Longitude:

-91.11423

MSA: 0000

Not in a MSA

Elevation (ft): 1134

Pollutant	AQS Code	Monitor Type		Col	Freq	Scale	State- Obj	Unit- Code	Unit	Method- Code	Method	Monitor- Objective
Ambient Temperature	68105	SPM	1		1/6	N/A	COM	017	deg C	803	Off-Site Avg Temperature	Other
Lead (TSP) - LC FRM/FEM	14129	SLAMS	1		1/6	NBR	СОМ	105	ug/m^3-LC	192	Inductive Coupled Plasma Spectrometry	Source Oriented
Sample Baro Pressure	68108	SPM	1		1/6	N/A	СОМ	059	mm (Hg)	803	Off-Site Avg Pressure	Other

AQS Site Number 29-183-1004

2165 Highway V, St. Charles, MO 63301

Latitude: 3

38.8994

AQCR: 070

Metropolitan St. Louis

Longitude:

-90.44917

MSA:

7040

St. Louis, MO-IL

Elevation (ft): 441

		Monitor	r <u>-</u>				State-	Unit-		Method	l-	Monitor-
Pollutant	AQS Code	Type	POC	Col	Freq	Scale	Obj	Code	Unit	Code	Method	Objective
Indoor Temperature	62107	SPM	1		1	N/A	MET	017	deg C	013	Electronic Averaging	Other
Ozone	44201	SLAMS	1	✓	1	URB	COM	007	ppm	047	Ultraviolet Photometric	Extreme Downwind

Tuesday, May 21, 2013 Page 37 of 49

18701 Old Highway 66, Pacific, MO 63039

Latitude:

38.4902

AQCR: 070

7040

Metropolitan St. Louis

Longitude:

-90.7052

MSA:

St. Louis, MO-IL

Elevation (ft): 524

Pollutant 2	1QS Code	Monitor Type		Col	Freq	Scale	State- Obj	Unit- Code	Unit	Method- Code	Method	Monitor- Objective
Indoor Temperature	62107	SPM	1		1	N/A	MET	017	deg C	013	Electronic Averaging	Other
Outdoor Temperature	62101	SPM	1		1	N/A	MET	017	deg C	040	Electronic Averaging	Other
Ozone	44201	SLAMS	1	✓	1	NBR	COM	007	ppm	047	Ultraviolet Photometric	Population Exposure
Wind Direction - Resultar	nt 61104	SPM	1		1	N/A	MET	014	deg	067	Instrumental: RM Young Mod 05103	Other
Wind Speed - Resultant	61103	SPM	1		1	N/A	MET	012	mph	067	Instrumental: RM Young Mod 05103	Other

AQS Site Number 29-187-0006

105 Industrial Dr., Park Hills, MO 63601

Latitude:

37.86485

AQCR: 138

SE Missouri

Longitude:

-90.50804

MSA:

0000 Not in a MSA

Elevation (ft): 743

Pollutant	AQS Code	Monite Type	-	Col	Freq	Scale	State- Obj	Unit- Code	Unit	Method Code	L Method	Monitor- Objective
Ambient Temperature	68105	SPM	1		1/6	N/A	COM	017	deg C	803	Off-Site Avg Temperature	Other
Lead (TSP) - LC FRM/FEM	14129	SPM	1		1/6	NBR	сом	105	ug/m^3-LC	192	Inductive Coupled Plasma Spectrometry	Population Exposure

Tuesday, May 21, 2013 Page 38 of 49

Sample Baro Pressure 68108 SPM 1/6 N/A COM 059 mm (Hg) 803 Off-Site Avg Other Pressure

AQS Site Number 29-099-0009

500 Dow Industrial Dr., Pevely, MO 63070

Latitude: 38.2861

AQCR:

Metropolitan St. Louis

Longitude:

-90.38094

7040 MSA:

St. Louis, MO-IL

409 Elevation (ft):

Pollutant	AQS Code	Monitoi Type		Col	Freq	Scale	State- Obj	Unit- Code	Unit	Method- Code	Method	Monitor- Objective
Ambient Temperature	68105	SPM	1		1/6	N/A	COM	017	deg C	780	Instrumental	Other
Lead (TSP) - LC FRM/FEM	14129	SLAMS	1		1/6	NBR	СОМ	105	ug/m^3-LC	192	Inductive Coupled Plasma Spectrometry	Source Oriented
Sample Baro Pressure	68108	SPM	1		1/6	N/A	СОМ	059	mm (Hg)	780	Instrumental	Other

AQS Site Number 29-099-0026

Tiarre at the Abbey, Station 150N, Christine Drive, Pevely, MO 63070

Latitude:

38.296

AQCR:

Metropolitan St. Louis

Longitude:

-90.393

MSA:

7040

070

St. Louis, MO-IL

Elevation (ft):

Pollutant	AQS Code	Monitor Type		Col	Freq	Scale	State- Obj	Unit- Code		Method- Code	Method	Monitor- Objective
Ambient Temperature	68105	SPM	1		1/6	N/A	СОМ	017	deg C	780	Instrumental	Other
Lead (TSP) - LC FRM/FEM	14129	SLAMS	1		1/6	NBR	СОМ	105	ug/m^3-LC	: 192	Inductive Coupled Plasma Spectrometry	Source Oriented
Sample Baro Pressure	68108	SPM	1		1/6	N/A	COM	059	mm (Hg)	780	Instrumental	Other

Tuesday, May 21, 2013 Page 39 of 49

1802 E. 203rd Street, Belton, MO, 64012

Latitude: 38.75976

AQCR: 094

Metropolitan Kansas City

Longitude:

-94.57997

MSA:

3760

Kansas City, MO-KS

Elevation (ft): 1031

		Monitor	·_				State-	Unit-		Method-		Monitor-
Pollutant	AQS Code	Type	POC	Col	Freq	Scale	Obj	Code	Unit	Code	Method	Objective
Acceptable PMCoarse LC	- 86502	SPM	1		1	NBR	COM	105	ug/m^3-LC	790	FDMS- Gravimetric 1405-DF	Population Exposure
Baro Pressure	64101	SPM	1		1	N/A	MET	059	mm (Hg)	014	Instrumental	Other
Indoor Temperature	62107	SPM	1		1	N/A	MET	017	deg C	013	Electronic Averaging	Other
Outdoor Temperature	62101	SPM	1		1	N/A	MET	017	deg C	040	Electronic Averaging	Other
Ozone	44201	SLAMS	1	✓	1	NBR	COM	007	ppm	047	Ultraviolet Photometric	Population Exposure
PM10 - LC	85101	SPM	5		1	NBR	COM	105	ug/m^3-LC	790	FDMS- Gravimetric 1405-DF	Population Exposure
PM2.5 - LC	88101	SLAMS	4		1	NBR	COM	105	ug/m^3-LC	182	FMDS- Gravimetric 1405-DF	Population Exposure
PM2.5 Tot Atmospherio	88500	SPM	1		1	NBR	AQI	105	ug/m^3-LC	790	FDMS- Gravimetric 1405-DF	Population Exposure
PM2.5 Volatile Channe	I 88503	SPM	1		1	NBR	AQI	105	ug/m^3-LC	790	FDMS- Gravimetric 1405-DF	Population Exposure
Relative Humidity	62201	SPM	1		1	N/A	MET	019	%humidity	020	Instrumental	Other

Tuesday, May 21, 2013 Page 40 of 49

Wind Direction - Re	sultant 61104	SPM	1		1	N/A	MET	014	deg	067	Instrumental: RM Young Mod 05103	Other
Wind Speed - Resu	ltant 61103	SPM	1		1	N/A	MET	012	mph	067	Instrumental: RM Young Mod 05103	Other
Roder Gree	k								AQS	S Site Nun	nber 29-047	-0006
13131 Highwa	ay 169 NE., Si	mithville	, MO	54089	9							
Latitude:	39.33188	AQCR:	094	Metro	opolitan	Kansas C	ity					
Longitude:	-94.5806	MSA:	3760	Kans	sas City,	MO-KS						
Elevation (ft):	993											
Pollutant	AQS Code	Monitor Type	POC	Col	Freq	Scale	State- Obj	Unit- Code	Unit	Method- Code	Method	Monitor- Objective
Indoor Temperature	62107	SPM	1		1	N/A	MET	017	deg C	013	Electronic Averaging	Other
Ozone	44201	SLAMS	1	✓	1	NBR	COM	007	ppm	047	Ultraviolet Photometric	Population Exposure
Wind Direction - Re	sultant 61104	SPM	1		1	N/A	MET	014	deg	067	Instrumental: RM Young Mod 05103	Other
Wind Speed - Resu	ltant 61103	SPM	1		1	N/A	MET	012	mph	067	Instrumental: RM Young Mod 05103	Other
Samannah									AQS	S Site Nun	nber 29-00 3	-0001
11796 Highwa	ay 71, Savann	ah, MO 6	64485									
Latitude:	39.9544	AQCR:	137	North	nern Mis	souri						
Longitude:	-94.849	MSA:	7000	St. J	oseph, M	10						
Elevation (ft):	1120											
Pollutant	AQS Code	Monitor Type		Col	Freq	Scale	State- Obj	Unit- Code	Unit	Method- Code	Method	Monitor- Objective
Ozone	44201	SLAMS	1	✓	1	NBR	СОМ	007	ppm	047	Ultraviolet Photometric	Population Exposure

Tuesday, May 21, 2013 Page 41 of 49

Wind Direction - Resultant	61104	SPM	1	1	N/A	MET	014	deg	067	Instrumental: RM Young Mod 05103	Other
Wind Speed - Resultant	61103	SPM	1	1	N/A	MET	012	mph	067	Instrumental: RM Young Mod 05103	Other

AQS Site Number **29-510-0007**

8227 South Broadway, St. Louis, MO 63111

Latitude: 38.5425

AQCR: 070

Metropolitan St. Louis

Longitude: -90.263611

7040 MSA:

St. Louis, MO-IL

Elevation (ft): 452

Pollutant	AQS Code	Monitor Type		Col	Frea	Scale	State- Obj	Unit- Code	Unit	Method- Code	Method	Monitor- Objective
Acceptable PMCoarse LC		SPM	1		1	NBR	COM	105	ug/m^3-LC		FDMS- Gravimetric 1405-DF	Population Exposure
Baro Pressure	64101	SLAMS	1		1	N/A	MET	059	mm (Hg)	014	Instrumental	Other
Indoor Temperature	62107	SPM	1		1	N/A	MET	017	deg C	013	Electronic Averaging	Other
Outdoor Temperature	62101	SPM	1		1	N/A	MET	017	deg C	040	Electronic Averaging	Other
PM10 - LC	85101	SPM	5		1	NBR	СОМ	105	ug/m^3-LC	790	FDMS- Gravimetric 1405-DF	Population Exposure
PM2.5 - LC	88101	SLAMS	4		1	NBR	COM	105	ug/m^3-LC	: 182	FMDS- Gravimetric 1405-DF	Population Exposure
PM2.5 Tot Atmospheric	c 88500	SPM	1		1	NBR	AQI	105	ug/m^3-LC	790	FDMS- Gravimetric 1405-DF	Population Exposure
PM2.5 Volatile Channe	el 88503	SPM	1		1	NBR	AQI	105	ug/m^3-LC	790	FDMS- Gravimetric 1405-DF	Population Exposure

Tuesday, May 21, 2013 Page 42 of 49

AQS Site Number 29-077-0026

5012 S. Charleston, Springfield, MO 65804

Latitude: 37.122561

AQCR: 139 SW Missouri

Longitude: -93.263161 MSA: 7920 Springfield, MO

Elevation (ft): 1234

		Monitor	·_				State-	Unit-		Method	_	Monitor-
Pollutant	AQS Code	Type	POC	Col	Freq	Scale	Obj	Code	Unit	Code	Method	Objective
Indoor Temperature	62107	SPM	1		1	N/A	MET	017	deg C	013	Electronic Averaging	Other
Sulfur Dioxide	42401	SLAMS	1	✓	1	NBR	СОМ	008	ppb	060	Pulsed Fluorescent	Source Oriented
Sulfur Dioxide Max 5-m Avg	nin 42406	SLAMS	1		1	NBR	СОМ	800	ppb	060	Pulsed Fluorescent	Source Oriented

AQS Site Number 29-187-0007

2800 Pimville Rd., Park Hills, MO 63601

Latitude: 37.81413

1413 *AQCR*:

CR: 138

SE Missouri

Longitude:

-90.50738

MSA:

0000

Not in a MSA

Elevation (ft): 937

Unit-Method-Monitor-Monitor-State-Pollutant AOS Code POC Col Freq Scale Unit Method Type Obj Code Code **Objective** Ambient Temperature 68105 SPM 1 1/3 N/A COM 017 deg C 803 Off-Site Avg Other Temperature **NBR** Lead (TSP) - LC 14129 SPM 1/3 COM 105 ug/m^3-LC 192 Inductive Population FRM/FEM Coupled Plasma Exposure Spectrometry Sample Baro Pressure 68108 SPM 1/3 N/A COM 059 mm (Hg) 803 Off-Site Avg Other Pressure

Tuesday, May 21, 2013 Page 43 of 49

S. Highway 759, St. Joseph, MO 64501

Latitude:

39.741667

AQCR: 094

7000

Metropolitan Kansas City

Longitude:

-94.858333

MSA:

St. Joseph, MO

Elevation (ft): 845

Pollutant /	AQS Code	Monitor	POC	Col	Frea	Scale	State- Obj	Unit- Code	Unit	Method- Code	- Method	Monitor- Objective
Acceptable PMCoarse - LC	86502	SPM	1	✓	1	NBR	сом	105	ug/m^3-L0		FDMS- Gravimetric 1405-DF	Population Exposure
Ambient Temperature	68105	SPM	3	✓	1/3	N/A	COM	017	deg C	127	Lo-Vol R&P 2025 Sequential	Other
Baro Pressure	64101	SPM	1	~	1	N/A	MET	059	mm (Hg)	014	Instrumental	Other
Indoor Temperature	62107	SPM	1		1	N/A	MET	017	deg C	013	Electronic Averaging	Other
Outdoor Temperature	62101	SPM	1		1	N/A	MET	017	deg C	040	Electronic Averaging	Other
PM10 - LC	85101	SPM	1	✓	1/3	NBR	СОМ	105	ug/m^3-L0	C 127	Lo-Vol R&P 2025 Sequential	Population Exposure
PM10 - LC	85101	SPM	5	✓	1	NBR	СОМ	105	ug/m^3-L0	790	FDMS- Gravimetric 1405-DF	Population Exposure
PM10 - Total STP	81102	SLAMS	1	~	1/3	NBR	СОМ	001	ug/m^3	127	Lo-Vol R&P 2025 Sequential	Population Exposure
PM2.5 - LC	88101	SLAMS	4	✓	1	NBR	сом	105	ug/m^3-L0	C 182	FMDS- Gravimetric 1405-DF	Population Exposure
PM2.5 Tot Atmospheric	88500	SPM	1	✓	1	NBR	AQI	105	ug/m^3-L0	C 790	FDMS- Gravimetric 1405-DF	Population Exposure

Tuesday, May 21, 2013 Page 44 of 49

PM2.5 Volatile Channel	88503	SPM	1	✓	1	NBR	AQI	105	ug/m^3-LC	790	FDMS- Gravimetric 1405-DF	Population Exposure
Relative Humidity	62201	SPM	1	✓	1	N/A	MET	019	%humidity	020	Instrumental	Other
Sample Baro Pressure	68108	SPM	3	✓	1/3	N/A	СОМ	059	mm (Hg)	127	Lo-Vol R&P 2025 Sequential	Other

AQS Site Number 29-049-0001

7536 SW. O Highway, Trimble, MO 64492

Latitude:

39.5306

AQCR:

Northern Missouri

Longitude:

-94.556

MSA:

3760

Kansas City, MO-KS

955 Elevation (ft):

Pollutant	AQS Code	Monitor Type		Col	Freq	Scale	State- Obj	Unit- Code	Unit	Method- Code	Method	Monitor- Objective
Indoor Temperature	62107	SPM	1		1	N/A	MET	017	deg C	013	Electronic Averaging	Other
Ozone	44201	SLAMS	1	✓	1	NBR	COM	007	ppm	047	Ultraviolet Photometric	Max Ozone Concentration
Wind Direction - Resulta	nt 61104	SPM	1		1	N/A	MET	014	deg	067	Instrumental: RM Young Mod 05103	Other
Wind Speed - Resultant	61103	SPM	1		1	N/A	MET	012	mph	067	Instrumental: RM Young Mod 05103	Other

AQS Site Number 29-095-0034

724 Troost (Rear), Kansas City, MO 64106

Latitude:

39.104722

AQCR:

094

Metropolitan Kansas City

Longitude:

Pollutant

-94.570556

MSA:

3760

Kansas City, MO-KS

Elevation (ft): 971

Monitor-

AQS Code Type

POC Col Freq Scale

State- Unit-Obj

CodeUnit Method-Code

Method

Monitor-**Objective**

Tuesday, May 21, 2013

Page 45 of 49

Acceptable PMCoarse - LC	86502	SPM	1		1	NBR	COM	105	ug/m^3-LC	790	FDMS- Gravimetric 1405-DF	Population Exposure
Ambient Temperature	68105	SPM	1		1/1	N/A	СОМ	017	deg C	118	Lo-Vol R&P 2025 Sequential	Other
Ambient Temperature	68105	SPM	3		1/6	N/A	COM	017	deg C	127	Lo-Vol R&P 2025 Sequential	Other
Baro Pressure	64101	SPM	1		1	N/A	MET	059	mm (Hg)	014	Instrumental	Other
Indoor Temperature	62107	SPM	1		1	N/A	MET	017	deg C	013	Electronic Averaging	Other
Nitric Oxide	42601	SPM	1		1	URB	COM	008	ppb	074	Chemiluminesce nce	Population Exposure
Nitrogen Dioxide	42602	SLAMS	1		1	URB	COM	008	ppb	074	Chemiluminesce nce	Population Exposure
Outdoor Temperature	62101	SPM	1		1	N/A	MET	017	deg C	040	Electronic Averaging	Other
Oxides of Nitrogen	42603	SPM	1		1	URB	COM	008	ppb	074	Chemiluminesce nce	Population Exposure
PM10 - LC	85101	SPM	1		1/6	NBR	COM	105	ug/m^3-LC	127	Lo-Vol R&P 2025 Sequential	Population Exposure
PM10 - LC	85101	SPM	5		1	NBR	СОМ	105	ug/m^3-LC	790	FDMS- Gravimetric 1405-DF	Population Exposure
PM10 - Total STP	81102	SLAMS	1		1/6	NBR	СОМ	001	ug/m^3	127	Lo-Vol R&P 2025 Sequential	Population Exposure
PM2.5 - LC	88101	SLAMS	4	✓	1	NBR	СОМ	105	ug/m^3-LC	182	FMDS- Gravimetric 1405-DF	Population Exposure

Tuesday, May 21, 2013 Page 46 of 49

PM2.5 Tot Atmospheric	88500	SPM	1	1	NBR	AQI	105	ug/m^3-LC	790	FDMS- Gravimetric 1405-DF	Population Exposure
PM2.5 Volatile Channel	88503	SPM	1	1	NBR	AQI	105	ug/m^3-LC	790	FDMS- Gravimetric 1405-DF	Population Exposure
Relative Humidity	62201	SPM	1	1	N/A	MET	019	%humidity	020	Instrumental	Other
Sample Baro Pressure	68108	SPM	3	1/6	N/A	COM	059	mm (Hg)	127	Lo-Vol R&P 2025 Sequential	Other
Sample Baro Pressure	68108	SPM	1	1/1	N/A	СОМ	059	mm (Hg)	118	Lo-Vol R&P 2025 Sequential	Other
Sulfur Dioxide	42401	SLAMS	1	1	MID	COM	008	ppb	060	Pulsed Fluorescent	Source Oriented
Sulfur Dioxide Max 5-min Avg	42406	SLAMS	1	1	MID	СОМ	800	ppb	060	Pulsed Fluorescent	Source Oriented

AQS Site Number 29-099-0025

210 Glennon Heights Rd., Crystal City, MO 63019

Latitude:

38.243

AQCR: 070

Metropolitan St. Louis

Longitude:

-90.37372

MSA:

7040

St. Louis, MO-IL

Elevation (ft): 578

Pollutant	AQS Code	Monitor Type		Col	Freq	Scale	State- Obj	Unit- Code		Method- Code	Method	Monitor- Objective
Ambient Temperature	68105	SPM	1		1/6	N/A	COM	017	deg C	780	Instrumental	Other
Lead (TSP) - LC FRM/FEM	14129	SLAMS	1		1/6	NBR	СОМ	105	ug/m^3-LC	192	Inductive Coupled Plasma Spectrometry	Source Oriented & Upwind Background
Sample Baro Pressure	68108	SPM	1		1/6	N/A	COM	059	mm (Hg)	780	Instrumental	Other

Tuesday, May 21, 2013 Page 47 of 49

Watkins Mill Road, Lawson, MO 64062

Latitude:

39.407419

AQCR: 094

3760

Metropolitan Kansas City

Longitude:

-94.265142

MSA:

Kansas City, MO-KS

Elevation (ft): 1009

Pollutant	AQS Code	Monitor Type		Col	Freq	Scale	State- Obj	Unit- Code	Unit	Method Code	l- Method	Monitor- Objective
Indoor Temperature	62107	SPM	1		1	N/A	MET	017	deg C	013	Electronic Averaging	Other
Ozone	44201	SLAMS	1	✓	1	URB	COM	007	ppm	047	Ultraviolet Photometric	Extreme Downwind

AQS Site Number 29-183-1002

General Elecric Store, Highway 94, West Alton, MO 63386

Latitude:

38.8725

AQCR:

070

Metropolitan St. Louis

Longitude:

-90.226389 *I*

MSA:

7040 St. Louis, MO-IL

Elevation (ft): 425

Pollutant .	AQS Code	Monitor Type		Col	Freq	Scale	State- Obj	Unit- Code	Unit	Method- Code	Method	Monitor- Objective
Indoor Temperature	62107	SPM	1		1	N/A	MET	017	deg C	013	Electronic Averaging	Other
Outdoor Temperature	62101	SPM	1		1	N/A	MET	017	deg C	040	Electronic Averaging	Other
Ozone	44201	SLAMS	1	✓	1	URB	СОМ	007	ppm	047	Ultraviolet Photometric	Max Ozone Concentration & Population Exposure
Solar Radiation	63301	SPM	1		1	N/A	MET	079	W/m^2	011	Instrumental	Other
Wind Direction - Resulta	int 61104	SPM	1		1	N/A	MET	014	deg	067	Instrumental: RM Young Mod 05103	Other

Tuesday, May 21, 2013 Page 48 of 49

Wind Speed - Resultant 61103 SPM 1 \square 1 N/A MET 012 mph 067 Instrumental: RM Other Young Mod 05103

Tuesday, May 21, 2013 Page 49 of 49